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Preventable Blindness

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In all his efforts the ophthalmologist is handicapped by the great delicacy and vulnerability and the very limited recuperativeness of the human eye. Since it is beyond human power to alter these characteristic qualities of the organ of sight, the ophthalmologist's hopes lie in the field of prevention of blindness rather than in that of restoration of sight. The main group of ocular diseases in which a striking improvement in the visual end-results and thereby a striking reduction in the incidence of blindness can be brought about in the United States by earlier recognition and intensification of treatment and follow-up are the glaucomas, the ocular diseases characterized by progressive loss of vision attributable to an abnormally high intraocular pressure. The advent of special glaucoma clinics for the indigent portion of urban populations marks a big advance in the campaign against glaucoma. All practicing physicians are requested to contribute toward the success of this campaign by suspecting the presence of glaucoma in every patient with progressive loss of vision until appropriate tests have proved the contrary.

■ I deeply appreciate the honor of being permitted to represent the specialty of ophthalmology at this meeting. Deep in my heart, however, I have the feeling that suffering mankind would gain more if you and I changed places and if ophthalmology as a whole became the listener at meetings such as this one. In the course of the natural coöperation between general physician and ophthalmologist a great deal of valuable information concerning the nature of the disease in question changes hands. In my experience it has occurred much more often that the general physician has opened the eyes of the ophthalmologist than vice versa.

But here I am, with orders from my ophthalmological colleagues to put our best foot forward and, at the same time, make the utmost of this opportunity. Our fight against preventable blindness has seemed an appropriate subject and a subject well in line with the keynote of this meeting, the building up of a better and sounder postwar world.

Only a small portion of the ophthalmologist's daily work comes under the heading of prevention of blindness. Taking stock of his functions, he finds that these largely consist of:

1. Increasing visual efficiency and lessening ocular discomfort by prescribing glasses and correcting muscular disorders;
2. Mitigating the course of inflammatory, traumatic and neoplastic diseases by therapeutic measures which are directed at the etiological principle or are just palliative in nature;
3. Being a sympathetic bystander and a more or less accurate recorder of diseases, generally labelled as degenerative;
4. Restoring sight by surgical means—namely by removing the cataractous lens, by inducing a detached retina to return to its normal position, by grafting clear cornea into the place of opaque, diseased cornea or by performing an optical iridectomy.

In all his efforts the ophthalmologist is handicapped by the great delicacy and vulnerability and the very limited recuperativeness of the human eye. This applies especially to the layer of photo-

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receptors in the human eye, the retina. Quoting from the standard textbook of ophthalmology by Sir Stewart Duke-Elder:

"As the key tissue of the eye the retina carries the primary responsibility of the visual function, and the destruction of its tissues by any pathological process involves irreparable blindness. Moreover, its destruction is easy, partly because of the delicacy and complexity of its structure which rapidly falls a victim to noxious influences, and partly because of the intensity of its metabolism which is unable to support the deprivation of essential supplies with impunity for any length of time.

". . . In all their pathological changes, indeed, the neural elements of the retina degenerate, and never regenerate; and if they make abortive attempts at proliferation, these are only pathological curiosities without essential significance in a reparative process."

Since it is beyond human power to alter the characteristic delicacy and susceptiveness of the organ of sight, the ophthalmologist's hopes lie in the field of prevention of blindness rather than in that of restoration of sight. Thus the question arises what constitutes preventable blindness, or more specifically, what forms of blindness can you and I prevent in our own spheres of influence and by practicable measures?

Causes of Blindness

About the causes of blindness in the U.S.A. we are informed by several statistical studies[4,7] based on the ophthalmologist's diagnoses in applicants for, or recipients of, relief for the blind. From such reports the incidence of blindness is calculated to be that of from 75 to 125 blind people per 100,000 capita. Since such reports do not include cases of blindness in the economically-better-situated classes, the actual incidence of blindness is probably greater than 1:1000. On the other hand, any of the statistics based on applications for blind relief comprise a goodly number of individuals in whom sight could be restored by measures so simple as a cataract extraction.

For the State of Illinois H. S. Gradle[5] has estimated this number to be as high as 25 per cent. But we are here concerned not with the incidence of blindness, but rather with those forms of incurable blindness which definitely are preventable or may become so with further progress of medical knowledge and in a better post-war world. For the purpose of this discussion the statistics on the causes of blindness may be simplified by omitting all obviously curable and all rare forms of blindness. The result of such a simplification is shown in Table I:

TABLE I

Cause of Blindness	Relative Incidence (Within this series)
Congenital anomalies and hereditary diseases	10.4%
Trauma	15.4%
Ectogenous, ulcerative keratitis	6.0%
Trachoma	0.7%
Interstitial keratitis	1.5%
Optic atrophy	15.0%
Retinopathy due to vascular disease	11.0%
Uveitis	24.0%
Glaucomas	16.0%

Table I obviously represents the situation of some years ago. In many respects we are already living in a better world than is indicated in the table. A number of the diseases which were responsible for cases of blindness listed in the table, belong to a group with which the French ophthalmologist Villard[6] deals in an article entitled: "L'agonie et la mort de quelques maladies des yeux," eye diseases which are slowly being eradicated by preventive measures. Such diseases are gonoblenorrhea of the newborn as well as of the adult, luetic uveitis, tabetic optic atrophy, phlyctenular and interstitial keratitis and a few others. Still, for the purpose of this discussion it may be permissible to paint the situation blacker than it actually is, by taking as a basis the causes of blindness of ten or twenty years ago.

Congenital anomalies and the hereditary atrophic-degenerative diseases of the eye have been put into one group, chiefly because most of the former have also been proved to be truly hereditary conditions and not just accidental mishaps in the development of the eye. The ophthalmologist is apt to get an exaggerated idea of the incidence of such congenital defects because most parents find it very difficult to comprehend and to become reconciled to the fact that their "otherwise perfectly normal child" should be irreparably blind or visually handicapped for life. The

advice of several ophthalmologists is sought which fact serves to make the tragic fate of the visually-defective child more generally known. Thus we all are kept on our toes in the new field of eugenics in ophthalmology, a field which was given due consideration in our texts and handbooks before it became a fundamental principle in the ideology of National-socialism. In ophthalmology, unfortunately, we are somewhat handicapped by the fact that all three possible modes of hereditary transmission may occur in the same clinical entity. Retinitis pigmentosa, for instance, the typical hereditary, progressive, atrophic-degenerative disease of the photo-receptors in the retina, has been known to occur in a dominant, recessive, or sex-linked form. Thus it behooves the ophthalmologist to determine the mode of hereditary transmission for each individual case or family which in the vast and wide-open U.S.A. is a far more difficult task than in Switzerland, from which country a great many exact studies of the hereditary background of ocular disease have come. Despite all difficulties we are trying to put the principles of eugenics into practice. In fifty or a hundred years from now I am confident there will be fewer albinos, fewer cases of retinitis pigmentosa and of all the other heredo-degenerations of the retina.

Trauma

With regard to trauma as a cause of blindness, about ten years ago ophthalmologists went through a phase of great self-satisfaction when the reports of some of our largest industries showed drops in the annual number of serious industrial eye injuries per 10,000 employes from 7.7 in 1926 to 1.9 in 1933. But the report by the Committee on industrial ophthalmology of the section on ophthalmology of the American Medical Association which was read before the Fourth Annual Congress on Industrial Health in 1942[2] tells us very clearly that our fight against industrial eye injuries must go on. In this report the Committee points out:

"Although during the past twenty-five years much progress has been made in the field of protecting employe's eyes from industrial eye hazards, nevertheless the average number of eye injuries has not been materially reduced. This may be explained by an increasing number of machine operators and machines. Three hundred thousand compensable eye accidents yearly are still taking place. These do not include trivial accidents such as uncomplicated injuries due to superficial foreign bodies in the cornea or conjunctiva. Ninety per cent of the serious accidents are preventable. There are in the United States 8,000 industrially blind, and 80,000 employes blind in one eye due to industrial accidents. The progress of the prevention of eye accidents is not working satisfactorily, and continued efforts must be directed constantly to programs of accident prevention."

Needless to say, there have occurred and will continue to occur innumerable eye injuries which are preventable by reasonable measures. It would not be reasonable to ask that we wear safety glass goggles all the time, but many serious eye injuries could be prevented if the amateur mechanic, carpenter or plumber kept a pair of goggles at his home, in his garage or in his car and remembered to put them on whenever he does a "job" in which there is a possibility of splinters striking the eye. Our children, I believe, should be made more conscious of the dangers to the eye entailed in so many of their seemingly harmless games. I have heard it said that it is a valuable lesson for a child to go through the experience of a broken arm or leg. That may be so, but that principle is certainly not applicable to the eye. The ophthalmologists of the State of Illinois heaved more than one sigh of relief when the legislature passed the bill prohibiting the retail sale of fireworks.

Chemotherapy

From your eyes I read the question: "Hasn't chemotherapy modified the outcome of eye injuries?" In nonperforating injuries of the cornea, local plus internal administration of one of the sulfonamides has doubtlessly been more effective in preventing or checking infection than the various bactericides and disinfectants used previously. The reason is obvious: In the case of the sulfonamides, effective concentrations of the bacteriostatic substance can be maintained in the cornea for the entire duration of the corneal disease. The mercurial and other disinfectants can only be applied externally and penetrate very little into the tissue, since they enter into chemical reactions with the tissue proteins. By making the more radical measures of drastic thermocauterization or delimiting keratotomy unnecessary, chemotherapy with sulfonamides has reduced the amount of permanent scarring of the

cornea that invariably results from corneal infections following trauma. In some very severe and far-advanced cases chemotherapy has at least prevented the infectious process from spreading into the eye and thereby at least saved the eyeball. Most important in the general practice of medicine is the fact that local chemotherapy in the form of sulfathiazole ointments, is very effective in preventing corneal infection after the removal of a corneal or intracorneal foreign body. To me a very remarkable fact is that even the infection of the cornea with pseudomonas pyocyanea responds to early chemotherapy as has been shown by Dr. C. W. Lepard of this city and, experimentally, by Dr. H. H. Joy of Syracuse.

In perforating injuries of the eye the results obtained with sulfonamide therapy have been noticeably, though not strikingly, better than in the pre-sulfonamide era. This may be explained by the fact that so far most ophthalmologists have instituted sulfonamide therapy in cases of perforating injuries only in the presence of definite symptoms of suppurative infection. While chemotherapy in some if not many of these cases may have been successful in checking the infection and preventing its spread, the absorption and organization of the suppurative exudates in the posterior segment of the eye entailed far-reaching and irreversible anatomical alterations, making the eye blind by pulling the retina away from its moorings. Thus, in order to be really successful in penetrating injuries, sulfonamide therapy must be instituted before large masses of cellular exudates are poured into the vitreous chamber, that is in a stage of the infection in which it can not always be recognized with certainty. Bellows, in his article on Chemotherapy[8] says, "In endophthalmitis and panophthalmitis . . . the sulfonamide compounds must be used early to be effective." He continues; "However, even in ordinary clinical cases, in which the time of initial treatment frequently cannot be chosen, the results are not entirely discouraging." In a few cases of infection following cataract extraction performed by members of the staff of the Illinois Eye and Ear Infirmary, chemotherapy has definitely mitigated the course and outcome of the disease which in the pre-sulfonamide era would doubtlessly have resulted in complete destruction of the eyeball. Ophthalmologists will have to acquire the courage to institute sulfonamide therapy in all early cases of penetrating injury in which there is any likelihood of an intra-ocular infection, barring only patients in a state of poor general health. Employed in this fashion, that is prophylactically and on a mere suspicion, sulfonamides may be expected to reduce appreciably the rate of blindness resulting from penetrating injuries.

What has been said here with regard to the beneficial effects of sulfonamide therapy in corneal injuries applies also to ectogenous ulcerative keratitis and to trachoma. In both conditions the severity of the corneal inflammatory process and, consequently, the extent of corneal scarring has been reduced by the judicious use of sulfonamides.

Lues

Preventive medicine "shines" in the luetic diseases of the eye. The proper measures to prevent interstitial keratitis and neurosyphilis need not be discussed here in detail. Only prenatal antiluetic therapy before the 5th month affords definite protection against interstitial keratitis. And only very energetic treatment with arsenicals of early syphilis reduces the danger of neurosyphilis and of optic atrophy. Antiluetic therapy during the course of the interstitial keratitis or of the optic atrophy is of very questionable value as far as the ocular condition is concerned. These two conditions are again examples of ocular diseases of which the prevention is a very promising project, whereas their treatment once the disease has gained foothold in the eye has been very discouraging.

Vascular Disease

Retinal vascular disease is responsible for an appallingly large portion of incurable blindness. The vascular disease in the large majority of these cases is arteriosclerosis and arteriolosclerosis. I do not consider myself competent to discuss the question of the prevention of systemic vascular disease, but I would like to say here that the high incidence of vascular retinal disease is most disheartening and exasperating to the ophthalmologist.

Uveitis

In Table I, uveitis accounts for 24.0 per cent of incurable blindness, a percentage which has been reduced somewhat during the last ten years thanks to more effective antiluetic therapy. Still uveitis remains one of the great problems in ophthalmology to which, as far as I can see, you have a

very close analogue in internal medicine, viz., the arthritis problem. Most of the statements made in the primer on arthritis which appeared in the *Journal of the American Medical Association*[1] apply to uveitis without modification. The primer says that "arthritis occurs in a number of different forms depending on various etiologic agents. Some of the groups are characterized by certain pathologic and clinical features which make their differentiation comparatively easy. In other instances only the most careful study will determine the identity of the articular disorder . . . In the majority of cases the etiology of the particular disease cannot be definitely determined . . . This is the group of probably infectious arthritis, but of unproved etiology." Exactly the same situation prevails in ophthalmology with regard to many forms of chronic or recurrent uveitis. Our theories concerning the pathogensis of these uveitides are strikingly the same as those concerning the pathogenesis of chronic rheumatoid arthritis. Despite all possible therapeutic efforts, in a goodly percentage of chronic uveitis blindness ensues. I fail to see any clues suggesting new lines of approach to the problem of the etiology and treatment of these uveitides and therefore do not expect any radical improvement of the situation in the near future.

The Glaucomas

This brings us to the last item on our list: the glaucomas. I definitely prefer the term, "The Glaucomas" because it expresses the heterogeneity of this large group of diseases which have in common only the one characteristic of progressive loss of visual function attributable to a state of abnormally high intra-ocular pressure. The three most important facts about the glaucomas are:

1. In a large number of cases glaucoma is not associated with ocular pain or discomfort in any form nor with any positive visual symptoms such as the seeing of haloes or rainbows around lights. This asymptomatic form of glaucoma is probably the most dangerous one because most patients do not become aware of it until a great deal of visual function, very often one whole eye, is lost.

2. Visual losses due to glaucoma, with the exception of those due to cloudiness of the cornea, are incurable and irreparable. Treatment, medicinal or surgical, can only prevent further loss.

3. In most cases loss of visual function due to glaucoma is or would have been preventable by relatively simple means. Many glaucomas respond favorably to conservative therapy.

4. Ineffectiveness of the therapeutic measures taken by the ophthalmologist accounts only for a small percentage of the blindness due to glaucoma that occurs in the U.S.A. Most of this blindness occurs because the disease was not recognized.

Thus the problem of reducing the amount of blindness due to glaucoma is largely a problem of early diagnosis. Since the disease may be asymptomatic except for a slow deterioration of vision and the elevation of pressure detectable only by specific tests, the fact that the patient has no complaints concerning his eyes and believes that his vision is normal is not sufficient evidence for the absence of glaucoma. While only the normal cooperation of two normal eyes provides the highest ocular function, namely stereopsis which enables naval, aerial and anti-aircraft gunners to use the modern rangefinders, in ordinary life unfortunately the vision of one eye may be lost entirely without the patient becoming in any way aware of this loss. Thus it is up to us to think of the possibility of glaucoma just as we think of or test for the presence of diabetes or hypertensive cardiovascular disease in any individual over forty. To me it would not seem too difficult or too laborious to include in every complete physical examination a test or two that would exclude the presence of advanced glaucoma. A peek at the patient's eye ground with the ophthalmoscope, a rough determination of the visual acuity with the patient's glasses and a rough field test by the confrontation method would seem adequate and at the same time not too time-consuming or difficult. In the not too distant future I hope that, to these simple tests, an examination of the intra-ocular pressure with the tonometer could be added. Such a program would not only be very much in the interest of the patient and his dependents but would also be of great value to the patient's employer, to the insurance company and the physician who share the responsibility for the patient's well-being.

But I believe we should go still further and try to detect glaucoma among the millions of citizens of this country who do not routinely and periodically pass through the office of a physician. Our children are given the benefit of routine

periodical eye examinations in school whereby gross ocular anomalies are detected. How could the adult population be given similar benefits? It seems to me that simple devices, not requiring an attendant, could be designed by which every adult could determine by himself whether the visual acuity of each eye and the visual field of each eye is within normal limits. I am thinking here of something like a "Penny Arcade," put up and maintained without cost to the "customer" by the Society of Prevention of Blindness of Shangri-la. Such devices could be placed in public buildings, at railway stations, and county fairs. An inscription on the device might simply say, "If you don't pass these tests, see your doctor right away." Such devices could be made attractive and interesting and would probably be more effective than posters or placards.

If a middle-aged or elderly person has discovered by himself or by the help of such devices that his vision is failing, it behooves all of us to suspect glaucoma until this suspicion is disproved by adequate tests. Unfortunately we (and I am including the ophthalmologists here) are very apt to be satisfied with a diagnosis of incipient cataract or with establishing the fact that the patient's visual acuity is improved by a change of glasses. The patient who is told that he has a beginning cataract or who is given a new pair of glasses has the right to think that that was the "whole trouble" and that nothing further can be done or has to be done, and that further loss of vision is still due to the cataract or calls again for a change of glasses. Thus both doctor and patient are lulled into a sense of false security.

Unfortunately, it happens only too often that a glaucoma is concealed behind an incipient cataract or that a glaucoma is the real cause of the patient's dissatisfaction with his glasses. In brief: A disease as insidious and inconspicuous as some of the glaucomas must be combated by suspecting it everywhere. Since you come in contact with a much broader section of the population, we have to ask you to carry most of the burden of suspecting and detecting glaucoma. Once it has been detected we shall do our very best to prevent any further loss, which usually means life-long observation and care. To carry out such treatment among the indigent special glaucoma clinics such as now exist in several large cities of the U.S.A. have proved very effective.

Ladies and Gentlemen, you have been what Deems Taylor would call well-tempered listeners to a subject that may seem of little importance compared to the gigantic medical issues of these days. Still, without you as an ally the benefits of preventive ophthalmology can never be made available to more than just a small portion of the nation.

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MSMS

Management of Large Vesical Calculi

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■ In the seventeenth century when cystolithiasis was a common disease and calculi attained enormous size, Frére Jacques,[20] originator of the lateral lithotomy, was reputed to say when he had completed the operation, "I have extracted the stone; I leave God to cure the patient." The mortality from sepsis following these early operations was high and rectal injury frequent. Today, despite several centuries of experience, lithotomy is still too often attended by severe postoperative infection, tremendous morbidity and high mortality.

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Removal of a urinary calculus is one of the oldest operations known to medicine and constituted one of the earliest specialties. It is mentioned in the writings of Hippocrates who described surgical procedures for the removal of stones but left the work of cutting for the stone to "practitioners of this art."[4] The first well recognized operation for bladder stone, according to Twinem,[20] was a median perineal lithotomy popularized by Ammonius of Alexandria in the third century B. C. Who first performed the operation is not known. This operation required only a knife and a hook. Later more instruments and modifications of this procedure came into use, including a lateral lithotomy in which the incision was made just medial to the left ischium. The so-called "grand appareil" (lithotomy with a staff) was first executed by Moranus Sanctus, who described the operation and the instruments necessary to perform it early in the sixteenth century. Needless to say, with these procedures, mortality was high.

Origin of the suprapubic lithotomy has been ascribed by different writers to the fourth[14] and to the sixteenth century[20] when it was employed by Franco, but the operation was used very little until the latter part of the last century, when the importance of obstruction in the etiology and development of urinary bladder calculi was appreciated. The development of surgical procedures for the removal of calculi was retarded by the popularity of lithotryptics (the oral administration of substances thought to possess lytic properties) with both the physician and the patient. It was not until 1818 that an instrument was employed to crush vesical calculi transurethrally. This instrument was the "trilabe" designed by Civiale.[14] It was improved in many ways in the years that followed, but the instruments in use today are chiefly the product of Bigelow.[3] In 1923 Goldstein and Lutz[8] advocated lithotrity under direct observation through the telescopic system of the cystoscope, and instruments developed for the purpose by Ravitch, Kirwin and Young are widely used.

Modern treatment of cystolithiasis has two principal forms, litholapaxy and suprapubic lithotomy, and in choosing the operation best suited, it is necessary to consider the following factors: (1) The condition of the patient, (2) the size and type of stone present, (3) the size of the urethra, prostate and bladder, and (4) in certain cases the removal of the lesion which predisposed to the calculus.

Recent years have shed little light on the cause of cystolithiasis despite much study. Two principal factors, working either singly or in concert, are probably responsible in most instances. The first of these factors is thought to be a disordered metabolism, producing primary stones, including uric acid, urates, and calcium oxalate deposited in acid urine, as well as crystalline calcium carbonate and phosphate precipitated from fairly alkaline or neutral urine. Primary stones have been held to be aseptic, but this is not altogether consistent with clinical findings, although it is possible they may be sterile when their formation begins.[14] Urinary colloids probably originating in the blood stream but possibly formed by the renal cells themselves, their amount varying greatly with the amount of protein in the diet, exert a protective action.[10] When the protective power of the colloids is abolished or appreciably diminished, a precipitate forms in the urine. It does not necessarily follow that a calculus will form, but a precipitate associated with stasis certainly predisposes. Keyser[11] produced artificial lithiasis by feeding oxamide and subsequently produced calcium oxalate stones in rabbits by feeding large amounts of calcium oxalate and causing concentration of the urine by dehydration. Calcium phosphate stones have similarly been produced by excessive doses of parathormone and viosterol.[14] In hypercalcemia due to hyperparathyroidism the calcium concentration of the urine is increased and the formation of urinary calculi is a prominent part of the disease.[2,6] Diets deficient in Vitamin A produce calculi of calcium phosphate in rats and dogs as shown by Osborne, Mendel and Ferry,[15] Fujimaki[7] and Van Leersum.[21]

The second factor is infection and the presence of foreign body; that is, something inserted through the urethra and remaining in the bladder, a nidus formed in the kidney and passing down the ureter, a clump of bacteria, pus cells, or epithelium. Randall[17] believes vesical calculi have their beginning in the papillae of the kidney and pass down the ureter to come to rest and grow in the bladder. Naegeli[14] believes that the calculi often form in the diverticula of the bladder. In the opinion of Bowers[4] there is something highly individualistic in some persons which predisposes to the formation of calculi.

Regardless of origin of the nidus, the influence

of stasis due to obstruction is of utmost importance in the growth of vesical calculi.

The incidence of cystolithiasis has changed radically in the last century.[14] In the Far East and in Europe 100 years ago it had a predilection for children. Today in Europe and in America it is primarily a disease of later life, occurring usually between the ages of forty and seventy. It is fifty times more common in the male than in the female, due doubtless to the fact that obstruction of the vesical neck (certainly prostatic hypertrophy), urethral stricture and vesical diverticula are primarily diseases of the male. Here in America, at the present time, renal calculi are more common than vesical calculi.

It is not infrequent for calculi, even very large ones, to exist for years without producing symptoms. The most consistent symptom is frequency of micturition, often so extreme that the patient must void every few minutes. Such a severe degree of tenesmus may be present that the bladder is in an almost constant state of spasm. Hematuria and pyuria are common findings and the termination of micturition is usually accompanied by hematuria and strangury as the stone comes to rest on the bladder base, stimulating the latter to contract and grasp the stone. Often the patient will describe sudden termination of the flow of urine and the ability to continue micturating on assuming a different position which will roll the stone from the internal meatus which it has occluded. Pain is usually present and is often relieved when the bladder becomes filled or when the patient is recumbent, that is, at such times as the stone leaves its lacerated bed and is cushioned by urine or comes to rest on less irritated mucosa. Any sudden jolt which thrusts the stone against the inflamed, irritated base of the bladder is a cause of severe distress.

The years have added much to diagnostic methods since the recognition of blood and pus in the urine by the early surgeons, until today Sherrill and Hall[18] state that "there is no department of surgery in which the refinements and the accuracy in the results of studies by methods of precision are so near perfection." The many refinements in radiographic studies, excretion radiography, cystoscopy, chemical, bacterial and microscopic studies of the urine, and blood chemistry estimation are invaluable aids in the diagnoses and management of these cases.

In the management of vesical calculi we have come far since the time of the itinerant lithotomists (itinerant, often refugee, by necessity). Very large calculi have usually been considered fatal. I do not believe this must necessarily be true. Cases where the calculi are too large or too hard to be crushed by the lithotrite, the urethra is too small in calibre to admit the instrument, and where the bladder is too small to admit sufficient water for utilization of transurethral procedures must of necessity be managed by cystotomy. The suprapubic approach has been most successful in my hands when attended by careful management.

The procedure should be divided into several stages. After careful estimation of the patient's condition, including blood chemistry studies, the first stage should be bilateral vasotomy with introduction of an indwelling urethral catheter if at all possible. This aids in preventing an ascending vasitis, epididymitis, or orchitis, if not already present, relieves the urinary obstruction and permits the clearing of bladder infection and the readjustment of fluid balance and kidney efficiency as much as possible under the circumstances. Further, it often adds much to the patient's comfort. Sulfonamides have been of inestimable value in reducing and controlling infection, while more recently one-sixth molar sodium lactate given intravenously has aided remarkably in readjusting fluid balance and raising kidney efficiency. Within limits one may spend as much time as is necessary to accomplish these ends before advancing to the second stage.

As in operations upon the prostate, a great deal of the mortality attending lithotomy has been due to sepsis of the wound spreading and extending into the prevesical space. Until very recently the second stage has been utilized as an insurance against this complication. The usual suprapubic incision down to the bladder wall was made and the wound packed with acriflavine gauze to stimulate a protective wall of granulation so that after seventy-two hours, when this wall has been established, one may return for the third stage or the incision of the bladder wall and removal of the stone either intact or after crushing. If advisable an obstructing prostate may be removed at the same time.

More recently we have employed only two stages, finding that packing the prevesical space with sulfanilamide crystals and closing the wound lightly around a large cystotomy tube controls the contamination nicely and permits earlier heal-

ing and lower morbidity. Careful attention to fluid balance, blood chemistry and the oral administration of the sulfonamides pre- and postoperatively is quite essential. It should be borne in mind, as has been pointed out many times, that a large calculus, unless it formed about a foreign body, has grown from small size because some obstruction was present which prevented its passing. The obstruction must be located and remedied if we would prevent a recurrence.

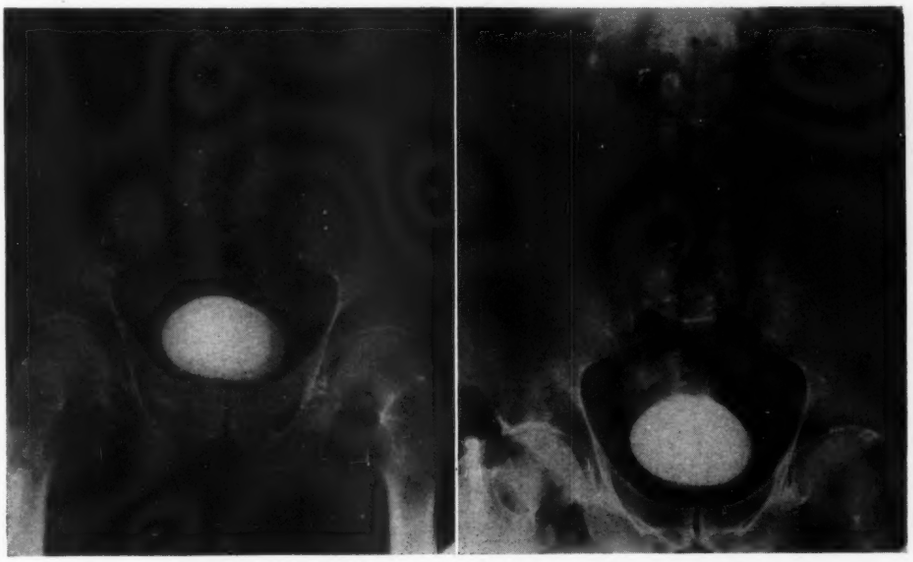

Fig. 1. *A*, Flat film showed the presence of the large stone. *B*, Intravenous pyelogram showed the stone and small diverticula.

Stones weighing over 100 grams are rarely reported. Randall[16] in 1921 reported a case of a giant vesical calculus and from a painstaking examination of the literature concluded that this giant calculus, chiefly composed of phosphate of calcium, was the largest bladder stone ever removed from a living patient. In this case a lithotomy was performed without injury to the peritoneum, but the patient died 36 hours after operation. On delivery the stone weighed 64 ounces, or exactly four pounds, but at present weighs 3½ pounds, its longitudinal circumference being 48 centimeters and its greatest horizontal circumference 40 centimeters. In the Grant Medical College, Bombay, India,[5] is the case of a vesical calculus weighing 30 ounces, 96 grains. It is the size and shape of a small coconut, was chiefly composed of uric acids and urates, and is purported to have been removed from the bladder of a twenty-five-year-old male in 1876 or 1877 by Apothecary Wright who attempted a lateral operation, then a suprapubic, and lastly resorted to lithotryptics. The patient lived twelve hours after operation.

An ancient bladder stone found in an American mummy weighed one ounce troy or 32 grams.[22] Mitchell[13] in 1915 performed a successful lithotomy for a calculus weighing 30 ounces. In 1918 a calculus weighing 385 grams was reported.[12] The stone was broken on removal. Smith[19] in 1919 successfully removed a stone weighing 38½ ounces, the largest up to that time with recovery of the patient. Anagnostidis[1] in 1937 reported the removal of a stone weighing 1200 g. and measuring 16x10x9.5 centimeters from a patient who died ten days postoperatively. Greenberg's[9] 48-year-old patient lived after removal of a bladder stone the size and shape of a baseball and weighing a little over a pound.

The case reported here is of interest because of the unusual size of the calculus and because the outcome was quite favorable.

Case Report

A fifty-five-year-old man, well nourished, was first seen on May 15, 1940, complaining of suprapubic aching, dysuria and severe burning on micturation, day and night frequency, occasional hematuria and dribbling. On one occasion retention necessitated catheterization. There was no history of gross hematuria, but the patient said his urine was always cloudy and contained much sediment. He had had these urinary symptoms for the past twenty years, but only for the last two years had they bothered him much and they had increased in severity

in the last few weeks. A single roentgenogram of the abdomen (Figure 1-A) shows the large opaque shadow in the region of the urinary bladder. An intravenous pyelogram (Figure 1-B) revealed a normal right kidney but moderate left hydronephrosis and left hydro-ureter.

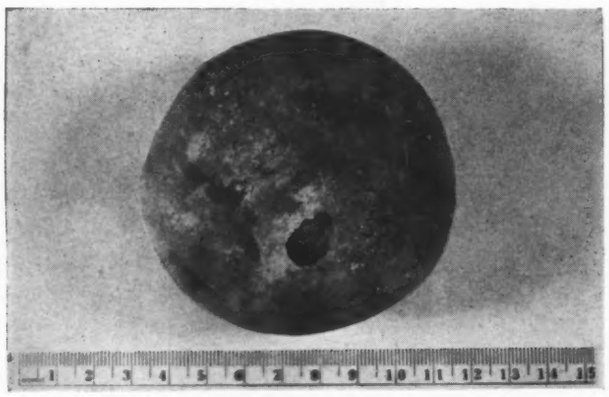

Fig. 2. The stone measured 9.5 x 6.5 centimeters and weighed 289 grams.

The resultant cystogram showed the presence of a large stone in the bladder and one large and several small diverticula. He was afebrile, and his pulse was 84, blood pressure 142/102. The general physical examination was negative except for tenderness over the suprapubic area and the rectal examination revealed a general prostatic enlargement. His hematology showed: 87 per cent hemoglobin, RBC 4.45, WBC 5900, Kline negative. The blood urea was 30.38 mgs. The urinalysis showed a trace of albumen and many pus cells. P.S.P., intramuscular, for the first hour was 10 per cent, second hour 13 per cent, third 12 per cent and the total was 35 per cent for three hours. The standard urea clearance was 123.5 per cent. Our working diagnosis was massive vesical calculus with hydronephrosis of the left urinary tract. Cystotomy and removal of the stone were advised.

Operation.—On May 23 a suprapubic cystotomy was done under spinal anesthesia and the stone was found to be intimately adherent to the bladder mucosa which was separated with a great deal of difficulty and the stone removed. The bladder wall was thickened. There was some hypertrophy of the intracystic portion of the prostate and the prostatic urethra was very contracted. This was dilated with a No. 24 sound and an indwelling catheter placed in the bladder. A large drainage tube was put into the bladder and the wall closed about it. Five grams of sulfanilamide were put into the space of Retzius and this area drained with rubber tissue. The abdominal wall was closed in layers about the tube and rubber tissue. The patient was put on sulfanilamide and intravenous injections of 5 per cent glucose, 1000 c.c. every eight hours for the first twenty-four hours and then 1,000 c.c. every twelve hours. Three days later the patient's temperature rose to 103° F, he was coughing bloody sputum, the abdomen was markedly distended and gangrenous sloughing of the wound was occurring. There were râles in the base of the right lung. He was changed to sulfapyridine and a blood transfusion was given. The abdominal distention was treated with the long tube and Wangensteen suction and the operative incision was opened. The bronchopneumonia yielded to treatment with sulfapyridine and recovery was complete. On the fifth day all drainage tubes were removed. The patient was discharged on July 6, 1940. The stone (Fig. 2) removed was very hard, oblong, laminated, whitish in color, weighed 289 grams when completely dry and measured 9.5 centimeters over its greater circumference and 6.5 over its lesser circumference.

Following discharge from the hospital periodic urethral dilatations were done because of the small calibre of the prostatic urethra. On June 3, 1943, the patient was readmitted to the hospital and on June 4 transurethral resection of the prostate was done. He was discharged from the hospital on June 14, 1943, and his convalescence has been uneventful.

Conclusions

1. The successful removal of a large vesicle calculus, measuring 9.5x6.5 centimeters and weighing 289 grams, is reported.

2. Vesicle calculi weighing over 100 grams are rarely seen and removal is attended by a high mortality.

3. Management: Stabilization of water balance and blood chemistry, use of indwelling catheter, pre- and postoperative oral and local administration of sulpha drugs, and suprapubic lithotomy under spinal anesthesia are recommended in the removal of all large urinary calculi. We believe that this procedure, if universally adopted, would greatly reduce the mortality of this operation.

4. Prostatic obstruction was probably the etiological factor in this case and was relieved by transurethral resection.

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MSMS

Clinical, Histopathological and Inheritance Factors in Peroneal Muscular Atrophy (Charcot-Marie-Tooth Type)

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Massive dosage of Vitamins E and B_6 administered in the treatment of peroneal muscular atrophy (Charcot-Marie-Tooth Syndrome) produced subjective improvement in this hitherto untreatable disease, in a case presentation of a patient whose genealogical history is traced through five generations of 123 individuals, twenty-six of whom were afflicted. Background history and clinical course of the disease are discussed. Heredofamilial statistics indicate a lowering in onset age in succeeding generations, increased longevity in comparison with unaffected family members. Fifty per cent of offspring of affected individuals are liable to transmission, males and females being equally susceptible.

■ Progressive types of muscular diseases are largely authenticated in accordance with the topographical distribution of atrophy or hypertrophy involved. Grouped generally, they are: Progressive muscular atrophy caused by disease of motor cells in the gray matter of the midbrain, hind brain, or spinal cord are classified as nuclear atrophies, myelotrophies or amyotrophies. Neural or neuritic atrophies are those due to involvement of motor nerve fibers. Atrophies linked with primary muscle disease are termed myopathies or muscular dystrophies.[18] In this discussion we are concerned only with a form of neural or neuritic atrophy—the heredofamilial peroneal muscular atrophy (Charcot-Marie-Tooth Syndrome), bringing up to the present a familial history of incidence of this type of muscular atrophy, first reported by Doctors Macklin and Bowman in 1926,[12] in a known history of five generations comprising 101 individuals, twenty-one of whom were affected. A case history of an additional family member is presented in this discussion.

Historical

Charcot and Marie[1] of France and Tooth[21] of England, furnished the first comprehensive clinical picture of peroneal muscular atrophy in 1886, although Virchow already had found changes in the atrophied muscles, their nerves and the spinal cord itself. Charcot, Marie, and Tooth refer to previous papers by Eulenburg,[4] Friedriech,[5] Ormerod,[15] and Osler.[16] More recently, the papers of these latter scientists have been collected by Schultze,[19] who had studied the disease in 1884. First designated as Eichhorst's disease by Dejerine, Hoffman[11] later called it "progressive neuritic muscular atrophy," and in 1891 it was changed to its present terminology.

Previous to this time "progressive muscular atrophy" indicated the type reported by DuChenne (1849) and Aran (1850); subsequently all cases having the appearance of this particular type were loosely designated as such. In 1853 DuChenne began his work of classifying muscular dystrophies. Later research by Cruveilhier and Luys contributed far-reaching progress, by proving that this disorder was the result of disease of the anterior horn cells of the spinal cord, causing DuChenne and Aran to revise their belief as to muscular origin. Charcot segregated amyotrophic lateral sclerosis from this large group of muscular atrophies in 1865. Schultze and Kahler isolated some forms of sensory anomalies, establishing the syringomyelia group in 1888. Erb established the juvenile type; Landouzy and Dejerine the facioscapulohumeral type; Charcot-Marie-Tooth the peroneal group, leaving so little of the original Aran-DuChenne type that it was declared in 1897 not to have a clinical entity.[18]

Etiology

The factor of heredity in peroneal muscular atrophy is predominant in known genealogical histories. Churchill[2] obtained records of this disease in nine generations; Haenel[7] reports thirty-two cases in four generations; Souques,[20] twenty-five in seven generations; Herringham,[10] nineteen in three; Gordon,[6] eleven in five. The "P" family of which the subsequent case presentation is a part, now shows twenty-six cases in five generations. Herringham reports that only males were affected, but that the disease was transmitted by healthy females. Raffan reports transmission through both normal and affected females. Gordon reports transmission only through affected females. In the "P" family, males transmitted the disease three times, females seven times. It is generally accepted that males are more frequently affected (Wilson, Bruce, Wechsler, Oppenheim, Hassin) than females, which is borne out in the "P" family histories which show that although males have transmitted the disease but three times in five generations, thirteen males were affected.

Onset of peroneal atrophy is usually associated with late childhood or youth, approximating the ages of ten to twenty years. Incidence of onset in the "P" family indicated a tendency for the disease to appear at increasingly younger ages in succeeding generations, as shown in subsequent tabulations. Invariably age of onset is homochronous for individual family members affected.

Symptomatology

Insidious in development, the first indication of progressive peroneal atrophy is atrophic weakness in the small extensor and abductor foot muscles, generally beginning in the abductors. Thereafter, in a gradual extension of atrophy similar to that found in spinal cases, it spreads to the extensor longus hallucis, extensor communis digitorium and peronei, producing in combination with atrophy of small foot muscles, a mild equinovarus deformity and "pied-engriffe." Flexor muscles of the ankle appear to remain unaffected for the longest period, although they too succumb as do the calf muscles.

Coincident with onset of small foot muscle atrophy, particularly when the disease begins in childhood, is the tendency to develop hammer toes and pes cavus, sometimes eliciting no complaint except the necessity for higher arched shoes. The arches slowly become higher with hyperextension of metatarsophalangeal joints coupled with flexion of digital joints. With the slow spreading of the atrophy, all muscles below the knee joint are affected, foot drop develops, and the patient finds difficulty in lifting his feet in normal walking, developing the necessary compensatory "steppage" gait.

Atrophy in the Charcot-Marie-Tooth type of peroneal disease seldom extends above the knee joint, being confined to a gradual wasting of muscles through the years to where the patient exhibits the typical "stork legs," with accompanying complete loss of muscle power in the lower extremities. In the case of the "P" family reported by Macklin-Bowman, there is shown in Figure 4 photographic evidence of advanced atrophy with an extremely sharp line of demarcation at the knee joint between healthy and atrophied muscles, and beginning typical claw-like foot development. However, in advanced cases, the muscles of the thigh eventually may become involved. Similarly, the upper extremities may run the same course of atrophy, with beginning changes in the thenar, hypothenar and interossei muscles, producing a claw-like hand. Flexors and extensors of the forearm gradually give way, although the supinator longus seldom becomes involved in the wasting process.

Muscles of the face, trunk, and proximal musculatures are generally free from attack, although Hoffman, Van Bogaert,[23] and Wohlfahrt[26] report isolated cases involving these areas.

Muscle power, while gradually and inevitably decreasing, may be preserved for a long time, enabling the patient to remain ambulatory despite his "stork legs." It is noted in some cases that the muscles showing the most apparent atrophy are not always the weakest and again, that those muscles showing earliest wasting do not always show greatest and most progressive atrophy. In addition to the atrophy there are vasomotor disturbances in the extremities; cold and clammy hands and feet, cyanosis, mottled appearance of skin, changes in nails, and Hatch[9] and Sachs[17] report atrophy of bone.

From the standpoint of reflex involvement, absent ankle and knee jerks are noted, although the latter are sometimes preserved throughout the long course of the disease, because of the healthy tone of thigh muscles. Gastrocnemius involvement diminishes or entirely abolishes ankle jerk.

TABLE I. CLASSIFICATION OF TYPES AND SYMPTOMS

GROUP 1. PROGRESSIVE NUCLEAR ATROPHIES, AMYOTROPHIES, MYELOPATHIES	CARDINAL SYMPTOMS
1. Aran-DuChenne type (spinal adult) 2. Werdnig-Hoffman type (early infantile hereditary) 3. Chronic poliomyelitis (not true progressive) 4. Fazio-Londe type (progressive bulbar paralysis of childhood) 5. Adult progressive bulbar form 6. Bernhardt type (mixed spinobulbar) 7. Chronic progressive opthalmoplegia	Onset late in life, rarely in early childhood. Not hereditary as a rule. Wasting first in upper extremities, leg type rare. Hypertrophy does not occur. Fibrillary twitchings. Reaction of degeneration often present in affected muscles.[18]
GROUP 2. PRIMARY MYOPATHIES OR MUSCULAR DYSTROPHIES	CARDINAL SYMPTOMS
1. Pseudohypertrophic type 2. Erb (juvenile type) 3. Landouzy-Dejerine (facioscapulohumeral type) 4. C. Hoffman (bulbar form) 5. Gowers (distal type) 6. Mixed and transitional types	Onset in early life. Generally hereditary, family trouble Wasting or hypertrophy begins in the lower extremities. Hypertrophy frequent. No fibrillary twitchings. Reaction of degeneration rare (qualitative electrical changes)[18]
GROUP 3. PROGRESSIVE NEURAL (NEURITIC) MUSCULAR ATROPHY	CARDINAL SYMPTOMS
1. Charcot-Marie-Tooth (peroneal form or leg type) 2. Dejerine-Sottas; Marie (hypertrophic interstitial neuritic type (tabetic) 3. Sainton (arm type) 4. Transitional and mixed forms	Onset anywhere from late childhood to middle age. Hereditary Wasting begins in lower extremities Hypertrophy absent Fibrillations Reaction altered, not as extreme as Group 1, not as mild as Group 2. Diminished quantitatively, altered qualitatively.

Arm and skin reflexes are relatively slightly affected. There are fibrillations, qualitative electrical changes up to an incomplete R.D. Oppenheim[14] reports a case in which marked modification of electrical excitability extended over the entire body, while atrophy was present only in the lower extremities. Mild sensory disturbances are noted—diminution in all forms, or complete loss of sensibility to touch, pain, temperature, particularly in distal areas. Vibration sense is most always impaired. Mild ataxia has been noted. Pain associated with peroneal atrophy is rather rare, according to Wechsler,[24] although Oppenheim, Sachs, Hausman, Wilson and Bruce report pain as an adjunct of the clinical syndrome. Marinesco reports extremely severe pain and marked hypaesthesia in a few cases.

The disease runs a chronic course, is not in itself fatal. Many affected individuals continue with their occupations while their legs become progressively atrophied and useless. Considering the longevity of members of the "P" family whose age at time of death is known, the average death age of affected members is sixty, while the unaffected deceased members had an average age at death of forty-seven. Wechsler reports that the disease frequently remains stationary and that there are remissions, sometimes of twenty-five years' duration.

Pathology

It is rather difficult to correlate the clinical symptoms of peroneal muscular atrophy with underlying pathologic conditions. It is undoubtedly heredodegenerative in nature. Atrophic lesions in ventral horn cells and dorsal root ganglia are most constantly in evidence. Degenerative lesions are usually found in ventral roots, ventral horn cells, peripheral nerves and muscles, corresponding to clinical sites. Analogous changes on the afferent side are equally common—in dorsal roots and ganglia, in the tracts of Goll and columns of Clarke. Pyramidal paths have occasionally been affected. Mainly in the lumbar enlargement, but also in the cervical, motor cells gradually decay and disintegrate, glial overgrowth ensues, and

interstitial reaction follows atrophy of axons and myelon sheaths in roots and nerves. Muscle lesions are necessarily of secondary nature.

Since the longest axons usually suffer first in decay of neuronic structures, this may account for primary onset in the lower extremities. The Goll degeneration is described as the result of axonal atrophy from the root ganglia of lower

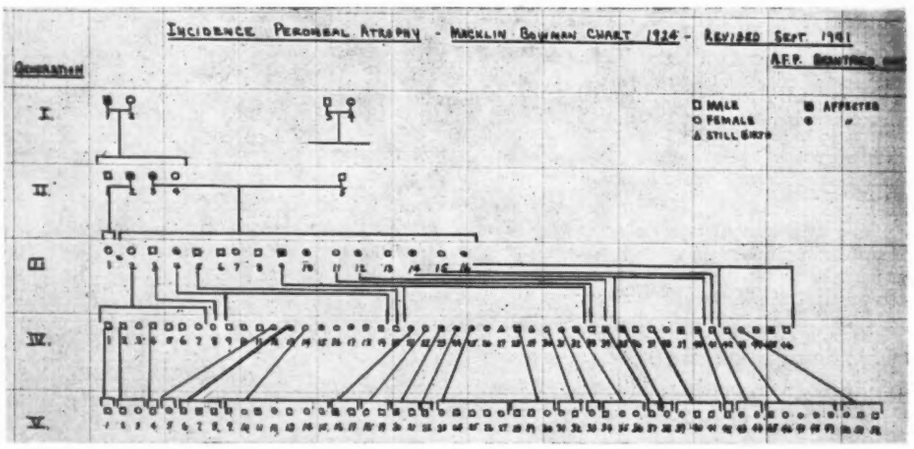

Fig. 1. Genealogical Chart of "P" family, showing incidence of peroneal atrophy (Charcot-Marie-Tooth type).

limb segments.[25] Spiller summarized the pathology as follows:

"The lesions are sclerosis of the posterior columns of the cord, slight degeneration of both pyramidal tracts (Sainton), with integrity of the anterolateral columns in some instances (Marinesco), alteration of the columns of Clarke, atrophy of the cells of the anterior horns of the cord, alteration of the peripheral nerves, which may be slight, and of the intramuscular branches, atrophy of muscle fibers, and chronic meningitis (Dejerine and Armand-DeLille). The nerve trunks, the cutaneous sensory nerves, and the anterior and posterior nerve roots, with slight exception, may be normal."

Muscles of the atrophied areas are in process of granular degeneration, with proliferation of nuclei of the perimysium, while other fibers degenerate entirely and are replaced by sclerotic scar tissue. Some fibers may remain unaffected and retain their striation.[8] The sclerotic scar tissue has been characterized by Nielsen as a somewhat hard connective tissue which affords some support to the joints, thereby providing a pathologic basis for the relative absence of disability in individuals suffering from this disease.

Differential Diagnosis

Criteria for diagnosis of the Charcot-Marie-Tooth type of peroneal atrophy are quite definitely established, permitting accurate recognition in most cases. However, since this neuritic type of atrophy embodies some of the characteristics of each of the remaining two large general groups of progressive muscular atrophies: (1) the progressive nuclear atrophies and (2) primary myopathies or muscular dystrophies, it might be well to include the classification of types and symptoms as shown in Table I. (See page 221.)

The tabulation embraces cardinal points in differential diagnosis that can be used as reliable criteria in the majority of cases. Hereditary factors, deviation in electrical reactions and fibrillary twitchings have been reported at variance with this classification in isolated cases. Of these cardinal symptoms, only a few are, without variance, present in one or the other type of progressive muscular disease, and we must be guided by a general agreement of symptoms rather than by any single one. Establishment of reliable diagnosis must include an evaluation of the allied types of disorders, which include: myasthenia gravis; Oppenheim's amyotonia congenita or myotonia congenita; Thomsen's myotonia congenita, myotonia atrophica; amyotrophic lateral sclerosis; syringomyelia; and family periodic paralysis.

Known genealogical history, symmetrical atrophy of distal peripheral segments, insidious onset from late childhood up to middle age, serve

EXPLANATION OF CHART

Generation	Male Affected	Male Unaffected	Female Affected	Female Unaffected	Age at Onset	Age at Death		Age
						Affected	Unaffected	
I	1				?	70		
II	2				Late in Life	Old Age		
II			3		40	73		
II				4			80	
III				1			61	
III				2			77	
III			4		?	50		
III		6					66	
III				7			75	
III		8					31	
III	9				25	42 (Twin to III, 10)		
III			10		18	66 (Twin to III, 9)		
III				11			40	
III			12		18	66		
III				13			Infancy	
III			14		20	74		
III				15				77
III			16		20	48		
IV		1					54	
IV		2						70
IV				3				68
IV		4					36	
IV		5					44	
IV		6					25	
IV				7				55
IV		9					Infancy	
IV		10					Infancy	
IV		11					18	

EXPLANATION OF CHART (Continued)

Generation	Male Affected	Male Unaffected	Female Affected	Female Unaffected	Age at Onset	Age at Death		Age
						Affected	Unaffected	
IV				12			61	
IV			13		16			62
IV				14			38	
IV			15		24			58
IV				16			Infancy	
IV			17		14			54
IV		18					28	
IV		19						46
IV		20						64
IV			21		15			61
IV		22						59
IV	23				30			57
IV			24		?			52
IV			25		?			50
IV				26				47
IV†								
IV		28						46
IV‡								
IV				30				44
IV			31		?			39
IV	32				31			36
IV		33						56
IV	34				25			58
IV	35				35			51
IV		36					23	
IV		37						49
IV				38			Infancy	
IV	39				12			43
IV	40				12			40
IV		41						56

†27, stillbirth, sex unknown.
‡29, stillbirth, sex unknown.

EXPLANATION OF CHART (Concluded)

Generation	Male Affected	Male Unaffected	Female Affected	Female Unaffected	Age at Onset	Age at Death		Age
						Affected	Unaffected	
IV		42						49
IV				43				46
IV		44						44
IV	45				18			42
IV		46						40
V		1						37
V		2						34
V				3				33
V		4						29
V				5				35
V		6						33
V	7				18			26
V*								
V				12				26
V		13				(Unknown)		
V				14		(Unknown)		
V	15				12			30
V		16						27
V		17						27
V				18				25
V	19				23			28
V		20						26
V		21						24
V		22						18
V				23				19
V		24						20
V		25						24
V		26						22
V				27				29
V		28						27
V**								

*8, 9, 10, 11, living, ages unknown.
**29 to 52, exact ages unknown, all under 26, all living and well.

as sufficient preliminary recognition of the Charcot-Marie-Tooth type of peroneal atrophy. The relative absence of disability distinguishes it from amyotrophic lateral sclerosis, with its marked disability.

Anterior poliomyelitis differs chiefly by irregularity of distribution; the Charcot-Marie-Tooth type is always symmetrical.

Similarly, Friedriech's ataxia can be ruled out; its wide clinical range (mental deterioration, ataxia, loss of knee jerks, Babinski responses, nystagmus) does not appear in the Charcot-Marie-Tooth type. The lumbar type of progressive muscular atrophy manifests itself later in the life cycle, without familial factors, and with no sensory disturbance.

The Charcot-Marie-Tooth type differs from the rare distal myopathy by fibrillation, general presence of knee jerks, and sensory symptoms.

The Dejerine-Sottas childhood type of hypertrophic neuritis is sometimes confused with the Charcot-Marie-Tooth type, since the latter also develops in childhood, with similar indications of neuritis. However, the Dejerine-Sottas is differentiated by hypertrophic and tender nerves, marked sensory loss, pain, while the Charcot-Marie-Tooth type does not show tenderness except in extremely rare cases, although thickening of the nerve may be present.

Because of its heredofamilial nature, a basic knowledge of the genealogical history is of extreme importance in evaluating this condition. In the presentation of this most recent clinical history of a member of the "P" family, we are fortunate in having access to a fairly complete familial picture. For much of this material I am indebted to Doctors Madge Thurlow Macklin and J. Thornley Bowman of London, Canada, particularly for their presentation of the case history of "A.P.," brother of the patient whose case I present in this discussion, and I wish to express my deep appreciation to them.

Genealogy of the "P" Family

The chart of this Canadian family is herewith presented (Fig. 1), covering five generations comprising 123 individuals, twenty-six of whom (thirteen males, thirteen females) are affected. The first known member of this family, represented as I 1, on the chart, came to Canada when a young man. He was an orphan and no knowledge of his antecedents is available.

Since Doctors Macklin and Bowman published their research findings in 1926 in the case presentation of IV 37—four additional instances of affection in the "P" family have been revealed:

IV 24—female, age at onset, not known
IV 32—male, age at onset, 31
V 7—male, age at onset, 18
V 19—male, age at onset, 23

No new cases of affection have been reported since 1925 in members of the third generation; two new cases developed in the fourth generation as noted above. One death of affected individual, IV 12, occurred since 1925 at age of sixty-one years. That the disease is showing increasing incidence in the fifth generation is indicated by the report of two additional cases, noted previously. Known members of the fifth generation is shown as fifty-two, with three affected. Little is known of twenty-four individuals (Numbers 29 to 52), except that they are under twenty-six years of age, and apparently well. While the chart would indicate a decrease in the disease in the fifth generation, it must be borne in mind that with the tendency for development of peroneal atrophy in the "P" family to occur later in life than is generally accepted by medical science (ten to twenty years), there will undoubtedly develop a higher incidence than is now evident.

Macklin and Bowman concluded that an affected individual is liable to transmit the condition to half his offspring. From the standpoint of liability of transmission by affected persons, the chart indicates that all affected persons do so. Of twenty-five affected individuals, ten have transmitted it, or a percentage of 40. Members of an affected family who themselves do not show clinical evidence of the disease, can and do, transmit it. This is supported by evidence of II 3, a woman who did not develop the disease until forty years of age, having produced a family of fifteen children—six of whom were affected. At least ten of her children, perhaps more, were born before she was forty; therefore, before she exhibited any manifestation of hereditary taint. Had she died before reaching forty, it would have appeared that there had been a remission of the disease for one generation.

Considering peroneal atrophy from the angle of sex transmission, it is shown that thirteen males and thirteen females are affected; the males transmitting it three times, the females

seven times. Macklin and Bowman stated in 1926: "Of the eleven females with peroneal atrophy, two had no children, three have children young enough to show it. Thus, 100 per cent of the females whose capacity for transmission we can verify, have passed it on."

This is verified further in the additions to this chart as of 1942. Of thirteen females with peroneal atrophy, three have no children; five have children young enough to show it (V 6, 7, 8, 16, 17, 22, 23, 24, 25, 26, 27, 33). Two of these five women have now transmitted to V 7 and V 19. Of the remaining children in the fifth generation by the three remaining mothers, one is thirty-three years old; one is of unknown age, eleven vary in age from eighteen to twenty-seven. Since these unaffected offspring cannot be considered as free of the hereditary condition because of their ages, it can be assumed that a ratio corresponding to previous percentage of affect in the family will ensue.

Average age of onset for all those affected is twenty-one years. If reviewed by generations it is shown as follows: Average age at onset in second generation, forty years; third generation, twenty-one years; fourth generation, twenty years, and in the fifth generation, eighteen years. This tends to indicate a lowering in onset through succeeding generations.

From the standpoint of longevity of affected persons, known records indicate that those affected have a longer life span than unaffected members. In 1925, average age at death of affected members was fifty-eight; of unaffected members, fifty-five. The family records as of 1942 show several changes, some because of deaths in the interim, others through correction of earlier reported life spans of several members by the family historian. We now have records of ages at time of death of seven affected members, the average at death being sixty years. Of the known fifteen unaffected, the average age at death is forty-seven. This is exclusive of stillbirths and deaths in infancy. One member lived fifty-four years after onset, one forty-eight years, one thirty-three years, and one seventeen years. Of living affected members, two are living forty-six years after onset, varying down to five years after onset.

Macklin and Bowman state that peroneal atrophy is due to the presence of a unit character, i.e., one that is carried within one chromosome and distributed to half of the mature germ cells; as a result being present in half the offspring. With 40 per cent of the "P" family affected, and with probability of a higher percentage as the family grows older, it is assumed that peroneal atrophy is due to a unit character, ratio approximating 50:50.

Peroneal atrophy is not sex-linked and recessive. If such were the case, the affected father would have no affected children, but his daughters would carry it latent, transmit it to their sons, who show it, and in turn transmit it to their daughters who would carry it latent. An affected father does not transmit a sex-linked recessive factor to his son. Since the first known member of the "P" family transmitted it to both son and daughter in active form, this type of inheritance must be dismissed. The disease is not recessive, since it has not appeared in children of unaffected parents. It is dominant, not sex-linked. To conclude that it is dominant, males and females exhibit it equally, transmit it equally; 50 per cent of offspring show it on the average, and it does not appear in families of unaffected parents.

This family shows no improvement in the course of the disease; it runs a gradual but inevitable course. Recent therapeutic measures have been observed and recorded which will be discussed later.

Case Presentation

H. P., male, aged forty-two, came to my office in 1940 for consultation; a well-developed, healthy looking individual, with the exception of difficulty in walking, and supporting himself with the assistance of a cane. He is a keenly intelligent individual, holds a responsible sales-directing position and leads an active life. Examination revealed wasting of muscles and atrophic skin below the knee, marked erythema over dorsum of both feet and toes. Further clinical and familial investigation revealed that he was suffering from peroneal atrophy of the Charcot-Marie-Tooth type.

History.—Patient has had insidious progressive atrophy of muscles of lower extremities since he was twelve years of age. However, he did not experience ambulatory difficulty until he was twenty, when he started to stumble. Thereafter, it became increasingly difficult for him to walk, bilateral foot drop developed, and he developed the customary "steppage" gait. His legs frequently buckle when negotiating stairs. He had experienced no pain, has not noted twitching in muscles, and sensation is present in both extremities. He has difficulty in keeping his feet warm, and observed that wounds heal poorly in the affected areas.

Family History.—Patient is IV 39 of the chart (Fig.

1). He is one of a family of six. Siblings: one sister, four brothers—two brothers being affected. The case reported by Doctors Macklin and Bowman in 1926 is the brother of this patient. Genealogical history shows that patient's mother, four of her sisters and a brother, patient's maternal grandmother and great grandfather suffered from peroneal atrophy. Patient is married but has no children.

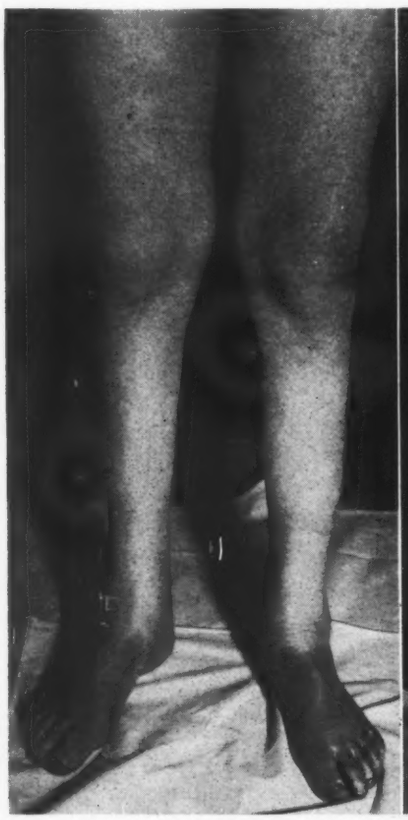

Fig. 2. Anterior aspect of patient "H.P." showing atrophy of lower extremities, marked erythema of both feet.

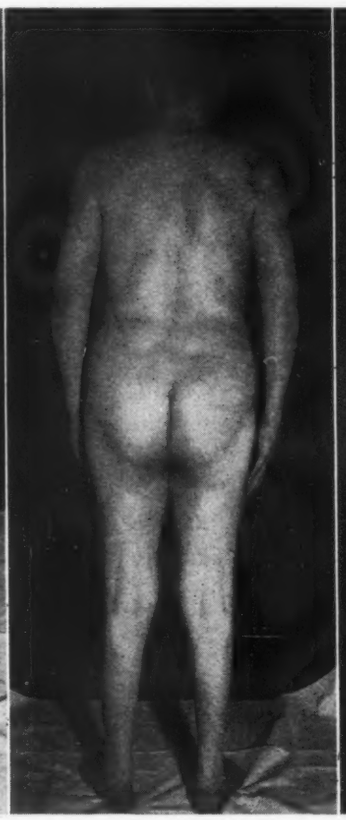

Fig. 3. Posterior aspect of patient "H.P." indicating well-developed male body above knee, marked atrophy below.

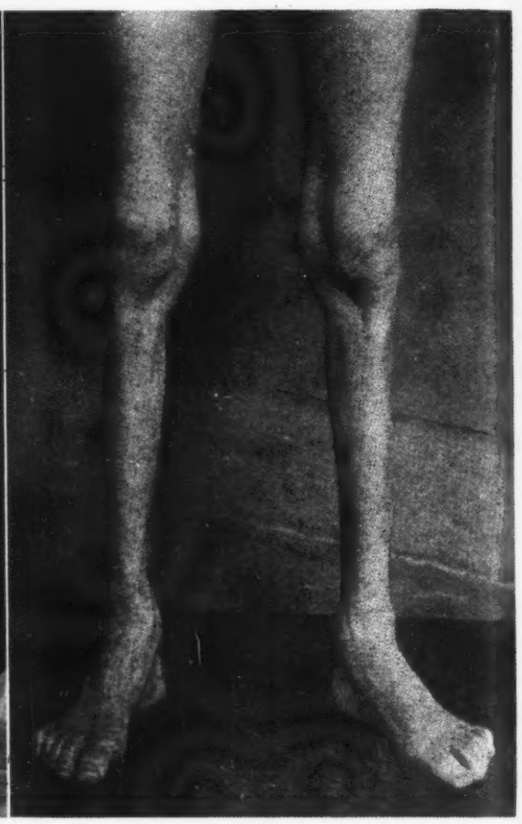

Fig. 4. Photograph of patient's brother "A.P." reported by Doctors Macklin and Bowman in 1926, showing definite line of demarcation at knee joint between atrophied and healthy muscles.

Clinical Course.—This man has been under my care intermittently since 1940, and in March, 1941, a biopsy of muscle was performed at Harper Hospital. Physical examination at that time, with the exception of lower extremities, was essentially normal. Skin was normal, with exception of atrophied area of lower limbs, and erythema of feet. Head, eyes, ears, nose and throat normal; heart and lungs normal; BP 125/84, temperature, pulse and respiration normal. He has slight weakness in abdominal muscles, and protuberant appendectomy scar.

Lower extremities exhibited severe atrophy of all muscles below knee, lesser atrophy in the lower third of thighs. No elasticity of Achilles tendon. No bone anomalies. Upper extremities showed no evidence of muscle atrophy. Reflexes: absent knee jerks and Achilles jerks. No clonus or Babinski. Upper abdominals present, lower abdominals absent bilaterally. Umbilicus moves upward in effort to sit erect unaided.

No sensory disturbance except dullness of sensation. Blood Chemistry: Sugar .100 per cent, NCN mgm. 38.5; Kahn, negative. Urinalysis: Specific gravity, 1.016, yellow, no casts, negative.

Under local anesthesia a considerable strip of muscle was removed, one incision over upper part of the peroneus longus, the other over nerve ending area. Muscle exposed exhibited a dull, brownish color.

Figure 2 shows anterior aspect of progressive muscular atrophy below knee, and marked erythema of both feet. Patient does not yet exhibit the claw-like foot structure characteristic of advanced Charcot-Marie-Tooth disease. Figure 3 shows posterior aspect, the well-developed male body above knee, marked atrophy below.

Laboratory study of the biopsied muscle tissue by Dr. Gabriel Steiner of the Brain Disease Registry at Wayne University, revealed extreme muscular atrophy, loss of contour of muscle fibers, with altered staining properties of cytoplasm, increase of sarcolemmal nuclei, and the appearance of hyaloid, globoid bodies indicating a peculiar process of muscular atrophy. Most of the muscle tissue is replaced by fat cells; the few remaining fibers do not show striation, and there is marked increase of collagenous fibrous tissue between remaining degenerated muscle substance. Microphotographs of atrophied muscle tissues, using various stains are shown in Figures 5, 6, and 7.

In Figure 5, contour of muscle fibers has been changed markedly with swelling and contraction.

There are irregular formed masses mixed with very numerous small hyperchromatic nuclei and a few larger nuclei which are poor in chromatin. Remnants of striation are extremely rare.

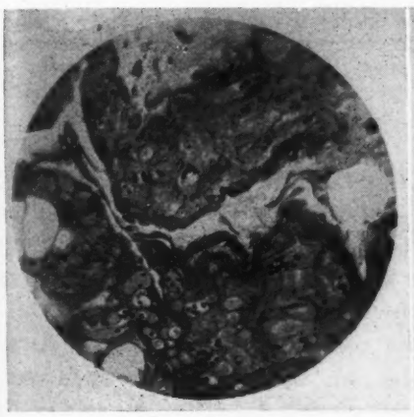

Fig. 5. Microphotograph, using von Gieson stain, showing changed contour of muscle fibers, irregular formed masses mixed with very numerous small hyperchromatic nuclei, and a few larger nuclei poor in chromatin. (Enlarged 125 times.)

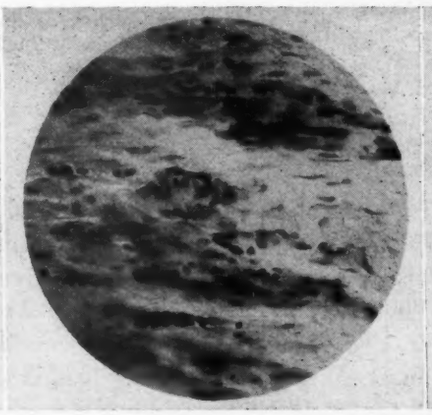

Fig. 6. Microphotograph showing sarcolemmal cells partially filled with reddish substance. Glycogen particles show very fine granules, usually in one peripheral part of cell, running parallel with direction of destroyed fibers. (Enlarged 175 times.)

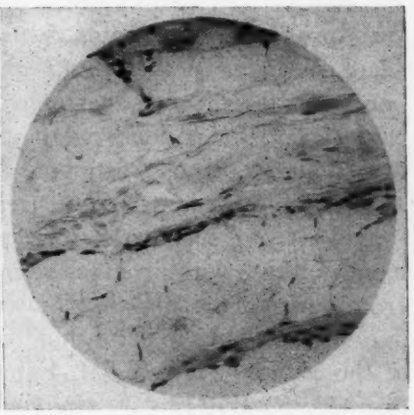

Fig. 7. Microphotograph shows very pale and metachromatic muscular substance, a number of globular homogeneously stained corpuscles with or without a small nucleus at the periphery. Larger oval corpuscles show accumulation of seven or more nuclei at one end. Numerous mast cells are present in the connective tissue. (Enlarged 125 times.)

Figure 6 shows a number of sarcolemmal cells partially filled with reddish substance. These glycogen particles show very fine granules usually in one peripheral part of the cell running parallel with the direction of the destroyed muscle fibers.

Figure 7 shows very pale and necrotic metachromatic muscular substance. Using this stain, there is shown a number of peculiar glomular homogeneously stained corpuscles with or without a small nucleus at the periphery, with some vacuoles in it. The larger oval corpuscles show an accumulation of seven or more nuclei at one end, giving an appearance of a peculiar giant cell. There are numerous mast cells present in the connective tissue.

Course of Treatment

Until recent years, medical science held out no hope whatever to the victim of peroneal atrophy, other than alleviation of subjective discomfort, and the use of orthopedic appliances. Although we must approach any course of treatment forearmed by very guarded prognosis in this hitherto hopeless disease, recent developments in the field of Vitamin E therapy offer a faint ray of hope where none has existed.

Clinically Vitamin E deficiencies have been largely identified with dysfunction of the reproductive system, and concordantly, the greatest achievements have been made in treatment of such disorders. Further investigation of such Vitamin E deficiency in rats revealed (1) retardation of growth in young animals accompanied by atrophy of muscles and paralysis of extremities and (2) degenerative lesions of the spinal cord in adult animals, with destruction and loss of function of the peripheral nerves. Bicknell of England and Wechsler reported simultaneously

Fig. 8. Lateral aspect of patient "H.P." showing incision for biopsy of muscle, lateral view of atrophied areas.

successful treatment of several cases of amyotrophic lateral sclerosis with Vitamin E in 1940. Subsequent investigation of these cases widened the scope of Vitamin E therapy in the treatment of other atrophies. Since this is a pioneer effort in a field where previously attempted therapeutic efforts have resulted in failure, we cannot make the dramatic announcement that Vitamin E therapy is the magic panacea for the treatment of these most stubborn neuromuscular diseases.

This is further borne out in a statement from

the Mayo Clinic (August 13, 1941) reporting progress in the administration of Vitamins E and B_6 to a total of twenty-seven patients, eleven of whom suffered from amyotrophic lateral sclerosis; five with progressive muscular atrophy; nine with progressive muscular dystrophy; one with Charcot-Marie-Tooth type of muscular atrophy; one with localized panatrophy. This list includes eighteen patients who had received prolonged and vigorous treatment; those with amyotrophic lateral sclerosis were treated for periods ranging from six weeks to eleven and a half months; those with progressive muscular atrophy, from four to ten months; muscular dystrophies five and one-half to nine months. In the words of the authors (Drs. L. M. Eaton, H. W. Woltman, H. R. Butt): "At the time of completion of our study, no patient who had amyotrophic lateral sclerosis or progressive muscular dystrophy was known definitely to have benefited. We have found no conclusive evidence that Vitamin E alone or in combination with B_6 or other vitamins is of benefit in amyotrophic lateral sclerosis, progressive muscular atrophy or progressive muscular dystrophy." Four of these patients with muscular dystrophy gave written testimony that they showed improvement; examination of two of them, however, revealed it to be subjective only.[3]

Mr. H. P. was started on vitamin therapy in March, 1940, receiving massive dosage of Vitamins E and B_6 orally and intramuscularly. He was placed on a moderate reducing diet to hold his weight to normal level without loss of energy. Adrenal cortex therapy was instituted in an attempt to effect further permeability of circulation in skeletal muscles and blood capillary walls, with the hope that the atrophied extremities might benefit from the stepped-up circulation. Light and heat treatment was prescribed to relieve vasomotor symptoms and to make the patient as comfortable as possible. Glycine was given to provide added energy by increased protein metabolism.

The results of this treatment can best be ascertained from the patient's written statements:

"I have been faithfully following the regimen of vitamins, Cortin, and glycine and my general condition is good. Weight is down to 150 from 165 pounds in April, with some gain in agility; as a result I imagine less general fatigue. Walking continues difficult; however, I can't say that I notice any muscular grain, and no marked changes beyond foot movements previously discussed. Due to lowered weight or other causes, mobility is somewhat improved. Hardly a week passes that I do not successfully attempt some small activity previously abandoned. Examples: I can mount a step about three inches high in the office washroom using only my left hand for support, where I previously used both hands. It is not yet a natural easy motion, but is becoming habitual. I can step off the final step of the office stairs using only my right hand on the rail. Previously, I turned sidewise and used both hands. I can get to a standing position out of all kinds of chairs much more easily. I made a 600-mile trip in Ohio with one of our salesmen, calling on a number of customers and doing considerable stair climbing. I would have dreaded such a trip last March, but I came back feeling fine. I don't think I can stress strongly enough the encouragement resulting; I do not want to seem too encouraging nor to see improvement where it doesn't exist."

Since subjective improvement is the best we can hope for with our present facilities in treating peroneal atrophy, our conviction that it should be eradicated from society is not altered. Education in contraceptive measures among family members where such known affliction exists is not only fair to them, but to the possible future generations. This is the only course open to us in controlling the spread of this disease.

I wish to take the opportunity to express my appreciation to Dr. Gabriel Steiner of Wayne University, Dr. Plinn F. Morse, chief of the department of pathology, and Dr. Robert Kidner, chief of the department of orthopedics, Harper Hospital, for their coöperation in making this study possible.

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Rhinolith in a Child

By Frederick T. Munson, M.D.
Detroit, Michigan

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Report of a case of a twelve-year-old girl, who had a large rhinolith of the right nasal cavity. This was removed under general anesthesia through the anterior nares. Section revealed a wad of paper as the "core" of the calcified mass.

■ THE formation of nasal calculi is becoming rather rare; in fact, a review of the literature reveals only 21 cases reported between 1925 and 1936 and a dozen cases reported since then. In 1921 Key-Aberg[1] collected over 300 cases from the literature. Stauffer[4] believes this decrease in incidence is due to better nasal hygiene and more frequent examinations. Nasal concretions apparently are more frequently found in adults than in children and occur more often in the female than in the male. Snyder and Feldman's[3] case, that of a child six years old, is the youngest patient on record.

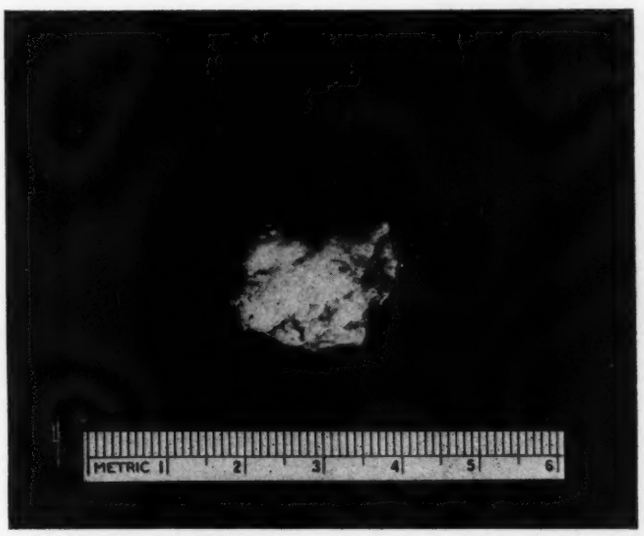
Nasal concretions are usually classified as (1) "true" rhinoliths, that is, those formed around a nucleus of blood, mucous or scabs, and (2) "false" rhinoliths, that is, those formed around a bead, button, bean, piece of coal or some such foreign body. They vary in size from that of a small granule to large masses which completely obstruct the nasal chamber. The largest rhinolith recorded weighed 110 grams.[4] Some of these large stones have to be removed by lateral rhinostomy.

Some authors believe that frequent head colds may be a factor in the formation of a rhinolith. Polisar[2] contends that the salts originate from the tears and to a lesser extent from the nasal secretions. In the differential diagnosis of rhinolith, osteoma, syphilitic sequestration, neoplasm, bony necrosis, and fibrosis of the turbinal bodies must be considered. The condition is usually one of long standing, is always unilateral, and no recurrences have ever been reported. Stauffer's[4] case is the most recently reported. This was a "true" rhinolith which apparently had existed for a period of fifteen years, and the symptoms which brought the patient to a physician were entirely referred to the ear.

In my own experience I have seen only two of these concretions. The first occurred in an adult a number of years ago. The second was found in a girl aged twelve, whose history follows:

The child was first seen on January 8, 1943, because of a history of foul drainage from and soreness in the right side of the nose for a period of two years. However, she was able to breathe through the right nostril at all times, even though the condition was aggravated during the winter months. She had had scarlet fever and diphtheria at the age of five. Her past history was otherwise irrelevant and the child was in good health except for the present complaint.

Upon examination the maxillary sinuses were found to be dark to transillumination, and the right nostril was filled with a gray, calcified substance some 2x1 cm. in size. Roentgenograms of the sinuses were not obtained. The tonsils were large and hypertrophic and the adenoids were moderately enlarged. The ear canals were clear and the drums entirely normal. A diagnosis of chronic tonsillitis, chronic suppurative maxillary sinusitis and rhinolith of the right nares was made.



The rhinolith measured 2 x 1.3 x .8 cm. and was composed of a hard shell of calcium carbonate formed over a wad of brown paper.

On January 9 the right nasal chamber was explored under ether anesthesia. The rhinolith was lying in the inferior and middle meati; it was kidney shaped, very hard and about 2 cm. long. Apparently the stone had pushed the septum over to the left and caused some atrophy of the lower turbinate against which it was

From the Department of Otolaryngology, Alexander Blain Hospital, Detroit, Michigan.

impinged. It was removed through the anterior nares by means of a curved curette which was used as a hook in obtaining purchase on the rhinolith. The right maxillary sinus was explored with a trochar and a moderate amount of pus evacuated. Tonsillectomy and adenoidectomy were performed, and the tonsils found to be very large and reddened, deep crypts being present bilaterally. The adenoids almost completely filled the nasopharynx.

The calculus removed from the nose measured 2x1.3 x.8 cm. and was found upon chemical analysis by Dr. Donald C. Beaver to be composed of calcium carbonate. When cut it was found to be a "false" rhinolith, having formed a thin but very hard shell over a core consisting of a wad of paper.

The patient was discharged on January 10, completely recovered.

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MSMS

THE DOCTOR'S HEART

Coronary arterial disease has been referred to many times as the doctor's disease. The pathologic changes produced in the heart by sclerosis of the coronary vessels are responsible for the doctor's heart. That this term is not a misnomer can be substantiated by the vital statistics reports of the last few years. In 1942, for example, there were 3,329 deaths of doctors listed in *The Journal of the American Medical Association.* The causes of these deaths have been broken down in an editorial which appeared in the *J.A.M.A.,* January 13, 1942. Heart disease was responsible by far for the greatest number of deaths amongst doctors. Of those physicians who died, death in 627 instances was reported as coronary thrombosis and occlusion with other coronary diseases, and angina pectoris listed to the number of 143. Eight hundred and thirty-eight deaths were the result of "disease of the heart and myocardium." There were listed also a considerable number of deaths as result of arteriosclerosis and its end results. Presumably a goodly number of these patients had coronary arterial disease as some of the diagnoses are quite inexact, indefinite and inconclusive, being reported merely as cardiovascular renal disease to the number of 217.—J. H. Musser, M.D., *Ohio State Medical Journal,* February, 1944.

Chordoma: Report of a Case

By William E. Keane, M.D.

Detroit, Michigan

M.D., Wayne Medical College 1902, Professor of Urology, Wayne University College of Medicine, Attending Urologist Providence and Receiving Hospitals, Consulting Urologist United States Marine Hospital and Deaconess Hospital, Detroit.

The literature of chordoma is reviewed and the diagnosis and treatment discussed, together with report of one case which produced unusual bladder disturbances.

■ A review of the literature concerning chordoma discloses considerable conflict and disagreement among various observers in regard to the incidence and results from treatment of these cases.

Chordoma is a comparatively rare and invariably fatal tumor which arises from the remnants of the fetal notochord. Nacha and Laskey,[3] state that the lesion is not as rare as was formerly believed. They point out that roentgenographic diagnosis is easily made, and add, that it is surprising that urologists do not report these lesions more often since the urinary symptoms are often the first or most pronounced of the disease. In general, it has been estimated that chordoma comprises one in every thousand admissions for malignant tumors.

Barnes and Owen,[1] review a series of 150 cases gathered by Mabrey. The approximate ratio of occurrence in various sites: cranial, five; vertibral, one and a half; and sacrococcygeal, nine. The tumors may appear at any age or in either sex. The highest incidence of sacrococcygeal chordomas is in the sixth decade in the male, and fifth decade in the female.

There is some difference in opinion regarding the importance of trauma as an etiological factor. This contention is supported by the fact that the tumor is more common in the male. Furthermore, investigators have shown that traumatization of the intervertebral discs in rabbits produces herniation of the nucleus polyposus resulting in proliferative changes in the chordal

rests which has the histologic appearance of chordoma. In addition, the history of injury is usually elicited.

In Mabrey's review the recognition of these tumors is made chiefly upon roentgenographic findings such as vacuolization and thickening of bony trabeculae and usually flattening of pelvic inlet. Chordoma must be differentiated from Paget's Disease, and from Osteitis fibrosis systica. Grossly the tumor is soft or cheesy in consistency, is gray to reddish in color with jelly-like cysts and occasional fibrous bands croscopically. These are characteristic epithelial-like vacuolated cells with centrally placed nuclei seen within an irregular, nucoid matrix. Tuberculosis, chondroma, chondrosarcoma, benign giant-cell tumors, dermoid tumors and colloid carcinoma must be excluded. Symptomatically, the patients complain of urinary disorders (dysuria, difficulty, or incontinence), pain in the perineum or buttock, radiating along the sciatic nerves, constipation or loss of rectal control, occult fecal blood, and a mass palpable externally or rectally. It has been shown that a low assay of urinary prolan may be found in these cases, and, when metastases (variously estimated between twenty-five, and, sixty per cent) or progression of the local lesion occur, this prolan is greatly increased.

Most investigators, including Mabrey, Barnes and Owen Coley,[2] and Bruce and Mekie[4] all feel that radical excision should be carried out whenever possible. Although such a procedure affords the best chance for cure the inaccessibility of sacral chordomas rarely permit such a radical treatment.

Most authorities agree that irradiation combined with excision is justified, although irradiation, alone, is only palliative in relieving pain and is usually without effect in reducing the tumor size. Recurrence after excision is generally to be expected.

One or two instances have been reported in the foreign literature of six-year "cures" from irradiation therapy. However, Nach and Daskey report the progress of one patient who merely had a suprapubic cystostomy performed accompanied by a disappearance of pain at the end of six years. They point out that if irradiation therapy had been instituted such therapy would have been accredited the good result.

While Young and Coley report successful radical extirpations without recurrences for one or two years, these cases are not really followed for a long enough period. In general, most authors agree that the prognosis is extremely poor.

Report of a Case

B. G., a seventy-year-old white man, consulted me in summer of 1939 complaining of inability to void. He had a transurethral resection of prostate in 1937, in the East, that apparently, afforded him some temporary relief but now had a return of his former symptoms. After urologic investigation I advised a radical prostatectomy but was unable to convince the patient and at his insistence I removed additional tissue by resection. The convalescence was marked by right epididymitis (although the vasae were supposedly ligated in 1937) and phlebitis. As he did not void satisfactorily and had a persistent pyuria I convinced him that radical prostatectomy was the correct solution and in September, 1937, I enucleated the gland suprapubically and he made a prompt convalescence and voided naturally.

Four months later, however, the patient complained of some difficulty in voiding and of pains in the rectum and penis. Examination revealed about twelve ounces of clear residual urine. During the ensuing eighteen months the voiding was more satisfactory and the residual urine disappeared. Yet a progressively distressing loss of voluntary rectal sphincter control occurred, and, finally, in June, 1941, the patient's urine passed involuntarily when he was on his feet. At this time the patient also complained of pain in the buttocks. Reexamination showed a large soft tumor in the left gluteal area and a smaller one in the mid-line. The laboratory findings were essentially normal. The roentgenographic study of the lower spine was of little value.

On July 21, 1941, exploration of the tumor mass was carried out and a lesion about the size of an orange was dissected free from its intimate attachment to the sacrum. A considerable defect was left in the latter and some portions of the tumor were unattainable.

The pathologic diagnosis of the lesion was chordoma although several areas microscopically suggested chondrosarcoma.

Recovery was uneventful. A course of deep x-ray therapy was then administered. However, in December, 1941, rectal palpation revealed an extension of the tumor.

The patient is able to be up and about his home. He empties the bladder fairly well but constipation has given him considerable trouble. During the past year the tumor has recurred but would soften and drain without incision. His appetite is good and general condition, fair.

I wish to thank Dr. Howard J. Hammer and Dr. Donald J. Jaffar for assistance in reviewing the literature.

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EDITORIAL

MEDICAL EVOLUTION

■ WE asked, "Have we a program?"

Medicine has been yearning toward better things since the dawn of history. Hippocrates required that his disciples teach their successors, and bound them to make new facts and new methods available to their confreres. Thus medicine became a profession. During the centuries a code of living (Ethics) has developed which has the respect of all right-minded persons. Reformers in every age, and especially our own, have charged that, because of this code, we are practicing medicine in the same antiquated way of our forefathers. These agitators have seized upon medical ethics, not knowing what these moral teachings are, only that they offer a chance for sabotage.

The profession has engineered its own evolution from within. It has adopted and developed methods of proven worth and benefit, and has rejected those not good. It has even aided in the socializing of medicine when such methods seemed the best way.

Years ago the Michigan State Medical Society secured the establishment of the Michigan Department of Health. The profession has been instrumental in the establishment of many state hospitals for the care of numerous types of people and conditions which have been demonstrated to be best handled as state charges. As a result small pox, diphtheria, typhoid fever have almost vanished as a cause of death. In two generations the life span of the American people has been nearly doubled.

Now bureaucracy proposes to take over. If medicine, unaided, can do what it has, why not make this service immediately available and free to all say the bureaucrats? Their schemes have been followed in certain socialistic countries, and others not entirely socialist, and the results have not been altogether good.

Bismarck gained control of Germany by giving free medical and hospital care of a sort. Britain recently proposed but has not adopted the Beveridge Plan. American enthusiasts have been agitating for a seizure of medicine for over a decade and a half. First came the report of the Committee on the costs of Medical Care, the first Wagner Bill, many minor bills, the Delano Report, the Supreme Court decision, the maternity-infant care project, and the present Wagner-Muray-Dingell Bills, all based upon a beautiful preamble to which there can be no objection.

MEDICAL EDUCATION

■ SOME months ago we questioned whether the proposal to telescope the Medical Education program would supply adequately trained Doctors of Medicine. A year has passed, and matters may now be reviewed. Soviet Russia has tried the telescoped course and found they could not train physicians properly in less than the normal time. They have abandoned the plan. Our own educators are now questioning this accelerated program, and are fearful that after the war a flood of inadequately trained men will be thrown back to the colleges for additional courses designed to fill out those that were shortened, and to supplement restricted medical internships. These men will have had one or several years of practice of a restricted variety, largely traumatic or emergency, and will need work to prepare them for a type of practice they will never have had.

This will occur at a time when our medical educational institutions are overcrowded with students and are understaffed with instructors. The college administrators are really concerned over the chaos that will ensue. So much has war and a degree of regimentation of the educational system done. What would be the condition under full bureaucratic control of the profession "from the cradle to the grave?"

It is time for our military leaders to recognize that their plan while designed to supply Medical Personnel for the war is actually disrupting the orderly progress of education and supply of adequately trained doctors for the postwar period. Why not adopt a more far-reaching program, being wise enough to plan for the whole nation? The telescoped courses cannot have much effect

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No Need for Compulsion Here

The annual County Secretaries' Conference and School of Information was held in Detroit on January 30, 1944. This will be known as one of the outstanding meetings of the year. I am sure that each and every member of the Society and the officers and members of the Woman's Auxiliary who were present gained much valuable information. Considerable attention was given to the Wagner-Murray-Dingell Bill by a number of outstanding speakers, and all agreed with those who characterized it as "fantastic in scope, idealistic in objective and extremely expensive in its economic aspect."

A short time ago, I received a letter from a doctor who is also an industrialist in which he states, "Recently I have had considerable conversation with a very well informed official of the CIO. He has read the Wagner-Murray-Dingel Bill through several times and is of the opinion that the medical profession would get farther by proposing a substitute bill correcting the evils of the former, rather than merely condemning it."

I believe we are all in accord with the idea that the people want some type of security for themselves and their families in all health fields. They do not wish to be regimented into a federal health program, but as honest, hardworking American citizens, they prefer to accept some plan of voluntary health insurance; to furnish this is the opportunity of the medical profession.

Recently, an editorial in one of Michigan's leading newspapers stated: "The American people feel there is something wrong with the medical profession. If the disciples of Hippocrates do not find a cure for the ailment, then less informed politicians with a knowledge of public sentiment will capitalize the grievances for the purpose of getting votes, and we will have State Medicine with all the waste, extravagance, inefficiency and the attendant horror of bureaucracy."

In Michigan, we doctors of medicine have a plan. Michigan Medical Service is meeting the needs of over 600,000 people in this state. If the medical profession will work together, first, for the extension to every interested person of the surgical care plan already offered by Michigan Medical Service, and, secondly, for broadening the program to provide pre-payment financing of other medical services in line with public demand, then, instead of one out of every nine residents in Michigan receiving the great benefits of Michigan Medical Service, our voluntary medical care plan will be available to a much larger number of our citizens and there will be no need for compulsory Federalized Medicine in Michigan.

C. R. Keyport

President, Michigan State Medical Society.

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President's

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on the number of doctors to graduate during the war, other than those who started early enough to have had their premedical courses. Why not plan now to serve the whole people, and incidentally better serve the armed forces?

OFFICIAL APPOINTEES

■ The Council at the mid-winter meeting in Detroit in January appointed the four officers who are Council Appointees. For Treasurer,

W. A. HYLAND, M.D.

L. F. FOSTER, M.D.

W. J. BURNS, LL.B.

WILFRID HAUGHEY, M.D.

William A. Hyland, M.D., of Grand Rapids who has served for many years; for Secretary, L. Fernald Foster, M.D., of Bay City who has been a tremendously active secretary and has been on call at all times for secretarial services and Public Relations officer; for Executive Secretary, William J. Burns, LL.B. Mr. Burns has been a great secretary, efficient, and always foreseeing calls that will be made upon him for time and assistance; for Editor, Wilfrid Haughey, M.D.

HAVE WE A PROGRAM?

■ TEN years ago our Michigan State Medical Society, after five years of study and the expenditure of over twenty thousand dollars, made a report on the distribution of costs of medical care in Michigan, with a proposal of a method of prepaid medical services. That was not adopted.

As the great depression gained upon us, our Society made another proposal aimed at furnishing medical services to our people through the use of the insurance principle; the profession planned to do it under private direction rather than by governmental and bureaucratic domination. To compete with governmental regimentation we must offer our people better services in a more acceptable form.

In 1939 the Medical Profession sponsored and fought through the Legislature two bills to permit the creation of group medical care and group hospitalization corporations. Michigan Medical Service was the answer and many of our members thought (and still do), that it can and will fill any gap. Michigan Medical Service was an evolutionary adventure into an absolutely new field. It was and is a great social experiment. Granted it made mistakes, it was and is ever ready and anxious to find and correct them. It appears that its troubles have about passed. One in nine Michigan citizens are subscribers to Michigan Medical Service, and in 1943, 3,289 different doctors of medicine were paid for 58,466 services to these subscribers. The bookkeeping deficit of 1942 is almost entirely wiped out and Michigan Medical Service will be in the black before half of 1944 goes by.

Some doctors believe Michigan Medical Service, if it could have the wholehearted support of all our members, might be in large part the answer to the Wagner-Murray-Dingell Bills and similar movements for the regimentation of medicine.

Public education in the problems of good health and adequate distribution of medical care is another part of our evolving program. Some steps have been taken along this line. The Michigan Health Council has been established. Studies are being made, certain groups have become sort of information centers, discussions of medico-sociologic problems have been undertaken by non-medical interests. More must be done.

We believe the way is being pointed for us by our own medical leaders in Michigan. We should all endeavor to help, not "sit by the side of the road and watch the world go by."

Michigan Doctors of Medicine in Military Service

Scattered throughout the world, laboring and fighting with America's aviators, marines, sailors and soldiers, are 1,763 Michigan Doctors of Medicine.

Michigan Medicine is proud of its physicians in uniform and their great contribution to the war effort.

Their sacrifices—even to laying down their lives, as have eight of our Michigan Doctors of Medicine—are a dramatic personification of medical history repeating itself.

We salute these men and glory in their achievements for Democracy. Their work and heroism is ensuring for us a continuation of the American way of life.

C. R. KEYPORT, M.D.
President, MSMS.

God Bless and Protect Them

Allegan

Beckett, M. B.	Major
Brown, L. E.	Capt.
Dolfin, W. M.	

Alpena-Alcona-Presque Isle

Foley, Arthur L.	Lt.
Kessler, Harold	Capt.
Martinson, Donald	Lt. (sg)
Nesbit, W. E.	Capt.
Ramsey, J. A.	Capt.
Rutledge, S. H.	Lt.
Trudeau, John	Capt.
Wienczewski, T. W.	Capt.

Barry

Altland, J. K.	Lt. Comdr. USN
Finnie, R. G.	Capt. AUS
Fisher, Gordon F.	Capt. AUS
McIntyre, K. S.	Lt. Comdr. USN
Prosper, G. Barnard	Capt. AUS

Bay-Arenac-Iosco-Gladwin

Asline, J. N.	Capt.
Burton, Horace	Capt.
Connelly, C. J.	Lt.
Dardas, Michael J.	Capt.
DeWaele, Paul	Lt.
Gronemeyer, W. H.	Capt.
Hagelshaw, G. L.	Lt. Col.
Hall, Robert F.	Capt.
Horowitz, S. Franklin ,	Capt.
Husted, F. Pitkin	Major
Jacoby, A. H.	Capt.
Knobloch, H. T.	Capt.
Lane, Milton	Lt.
Lerner, David	Lt.
McDonnell, W. R.	Lt.
McPhail, Joseph	Lt.(sg) USN
Medvesky, M. J.	Capt.
Miller, E. C.	Capt.
Moore, Neal R.	Capt.
Mosier, D. J.	Capt.
Pearson, S. M.	Capt.
Reutter, C. W.	Major
Riley, R. B.	Lt.
Shafer, H. C.	Capt.
Tarter, C. S.	Lt. Col.
Timreck, H. A.	Lt.
Woodbourne, H. L.	Capt.

Berrien

Bartlett, Walter M.	Lt. Col.
Brown, R. J.	Lt. Comdr. USN
Crowell, Richard C.	Lt. (sg) USN
Cutter, C. A.	AUS

★Died in Military Service.

Ellet, Wm. C.	Comdr. USN
Hershey, J. N.	AUS
Keppen, Ford	AUS
King, Frank, Jr.	Capt. AUS
Lane, Sidney	Lt. AUS
Lava, John B.	Capt.
Reagan, Robert	Lt. Comdr. USN
Rice, Franklin	AUS
Ruth, J. G.	Capt.
Sonneman, C. O.	Lt. AUS
Sowers, Bouton	Lt. Comdr. USN
Strayer, J. C.	Lt.
Woodford, Hackley	Lt. AUS

Branch

Chipman, E. M.	Capt.
Fraser, R. J.	Capt.
Joerin, Wm.	Lt.
Meier, H. J.	Capt.
Olmstead, Kenneth L.	Capt.
Scovill, H. A.	Capt.
Smith, L. L.	Capt.
Weidner, H. R.	Lt. Comdr. USN

Calhoun

Alpiner, Sam	Lt.
Amos, Norman H.	Lt. Comdr. USN
Becker, H. F.	Lt. Col.
Bonifer, Philip P.	Lt. (sg) USN
Brainard, C. W.	Lt. Comdr USN
Braham, W. G.	Lt.
Campbell, R. J.	Lt.(sg) USN
Capron, Manley J.	Capt. USN
Chynoweth, W. R.	Major
Clark, Eugene	Lt.
Curless, Grant R.	Capt.
Curry, Robert K.	Lt.
Dodge, W. M., Jr.	Major
Fallis, R. E.	Lt.
Forsythe, James	Lt.
Graubner, F. L.	Lt.
★Hale, C. E.	Capt.
Hansen, Harvey C.	Capt.
Hamilton, Lawrence E.	
Hoyt, A. W.	Lt.
Hubly, James W.	Capt.
Humphrey, Arthur	Lt. Comdr. USN
Jones, T. K.	Capt.
Keagle, Leland	Lt. (sg) USN
Kellher, George	Lt.
Kinde, M. R.	Major
Kingsley, Paul C.	Capt.
Lam, Francis L.	Lt.
Levy, Joseph	Capt.
Lowe, Kenneth	Lt. Comdr. USN
Lowe, Stanley	Capt.
Meister, F.	Major
Morrison, D. B.	Capt.
Mullenmeister, Hugh F.	Major
Norton, Richard	Major
Patterson, Adonis	Capt.

Peggs, Harold	Lt.
Prachar, Geo. A.	Lt.
Penzlar, Meyer	Lt.
Royer, Clark W.	Capt.
Simpson, Robert	Capt.
Slagle, George W.	Lt.(sg) USN
Sleight, James D.	Capt.
Smith, T. C.	Can. Army Capt.
Stadle, W. H.	Lt. Comdr. USN
Stewart, C. J.	Lt.
★Shick, W. H.	Lt.
Taylor, Clarence B.	Capt.
Wakeman, Everal	Lt.
Watson, B. A.	Major
Zinn, Karl	Capt.

Cass

Clary, R. I.	Lt. (sg) USN
Rice, F. G.	Capt.

Chippewa-Mackinac

Birch, Wm. G.	Major
Blair, Herbert M.	Capt.
Gilfillan, E. O.	Lt.
Hakala, L. J.	USPH
Mertaugh, Wm. F.	Major
Wallen, L. J.	Capt.

Clinton

Hart, Dean W.	Lt. Comdr. USN
Richards, Frank D.	Capt.
Russell, S. R.	Major
Slagh, E. M.	
Wahl, George E.	Capt.

Delta

Brenner, E. J.	Capt.
Clausen, Claire H.	Capt.
Fyvie, James H.	Lt.
LeMire, Wm. A.	Lt.
McInerney, Thomas	Capt.

Dickinson-Iron

Gloss, Kenneth E.	Major
Haight, H. H.	Lt. Comdr. USMC
McEachron, Hugh D.	Capt.
Retallack, R. C.	Capt.

Eaton

Brown, B. P.	Capt.
Carothers, Daniel J.	Lt.
Goff, Sidney	Capt.
Huyck, Stanhope P.	Capt.
Imthun, Edgar	Capt.
E. Madison Paine, Jr.	Capt.
Van Ark, Bert.	Capt.

Genesee

Adams, Chester H. Major
Andrews, Nelson A. Capt.
Anthony, George E. Capt.
Backus, Glen R. Capt.
Branch, Hira E. Capt.
Baker, Henry K. Lt.
Bald, F. W. Lt. Comdr. USN
Bateman, Lawrence G. Lt.
Burnside, Howard Capt.
Bernstein, Eli. Lt.
Beyer, Damon P. Lt.
Bradley, Robert Capt.
Bradford, Ferd. Lt.
Bruce, Wm. W. Lt.
Colwell, Clifford W. Major
Conover, George V. Lt. Comdr. USN
Cox, T. Jefferson Lt.
Drewyer, Glenn E. Lt. (sg) USN
Eickhorst, Thomas L. Lt. (sg) USN
Farhat, Maynard Capt.
Flynn, Southard T. Major
Finkelstein, Theodore Lt.
Fuller, Harvey T. Capt.
Gelenger, Stephen M. Capt.
Gorne, Saul S. Lt.
Gray, Edwin F. Capt.
Gutow, Julius J. Lt.
Hague, Robert F.
Hiscock, Harold H. Lt. Comdr. USN
Hubbard, Wm. B. Major
Johnson, Frank D. Major
Kaleta, Edward Lt.
Kaufman, Lewis D. Lt.
Lambert, Leslie A. Capt.
Miller, Loren E. Lt.
McArthur, R. H.
Rieth, George Lt.
Rowe, John Lt. (sg) USN
Rundles, Walter Z. Major
Sandy, Kenneth R. Capt.
Sartori, Max Lt.
Scarvada, Chas. J. Major
Schiff, Benton A. Lt.
Smith, Maurice J. Lt.
Snyder, Chas. E. Capt.
Sorkin, Maurice S. Lt.
Sorkin, Samuel S. Capt.
Steinman, Floyd H. Major
Tofteland, Elmer H. Lt.
Van Gorder, George F. Capt.
Vary, Edwin P. Lt. Comdr. USN
Walcott, Carver G. Lt. (sg) USN
Ward, Ivan W. Lt.
White, Carl Lt. Comdr. USN
Willoughby, Gordon L. Capt.
Woughter, Harold Lt.

Gogebic

Gullickson, Miles Lt.
Pinkerton, H. A. Lt. Comdr. USN
★Reid, J. D. Lt.

Grand Traverse-Leelanau-Benzie

Baumann, Milton C. Capt.
Brownson, Kneale M. Major
Green, Richard Capt.
Hamilton, Earl E. Capt.
Huene, Nevin Capt.
Knapp, Jos. L. Major
Lemen, Chas. E. Capt.
Lentz, R. J. Capt.
Trautmen, Frederick B. Capt.
Way, Lewis R. Major
Zielke, I. H. Capt.
Nickels, M. M. Lt. Comdr. USN

Gratiot-Isabella-Clare

Barstow, D. K. Capt.
Dale, Edward C. Capt.
Davis, L. L. Capt.
Graham, B. J. Lt. (sg) USN
Hammerberg, Kuno Capt.
Hersee, Wm. E. Lt.
Miller, S. W. Capt.
Oldham, E. S. Lt. (sg) USN
Rottschafer, J. L. Lt. (sg) USN
Slattery, F. G. Lt. (sg) USN
Wolfe, Kenneth P. Capt.
Wood, Cornelius B. Lt.

Hillsdale

Johnson, C. E. Major
Kinzel, R. W. Capt.
Mattson, H. F. Capt.
Sandor, A. A. Capt.
Sawyer, Walter W. Lt. (sg) USN
Strom, A. W. Lt. (sg) USN

★Died in Military Service.

Houghton-Baraga-Keweenaw

Acocks, J. R. Capt.
Aldrich, Leonard Lt. Comdr. USN
Kadin, Maurice USA
Kolb, F. E. USA
Pleune, R. E. Capt.
Roche, A. M. Capt.
Tinetti, Ernest F. Capt.

Ingham

Brown, F. M. Capt.
Burhans, Robert Lt. Comdr. USN
Clark, William E. Capt.
Clinton, George Lt.
Doyle, Charles R. Capt.
Drolett, Donald J. Capt.
Drolett, Lawrence A. Capt.
Fisher, D. W. Major
Gibson, Thomas E. Major
Goldner, Roy E. Capt.
Heald, Gordon H. Capt.
Harris, Herbert Major
Harrold, J. F. Capt.
Hendren, Owen Major
Higgins, Eaner P. Lt.
Himmelberger, R. J. Capt.
Hodges, Kenneth Lt. (sg) USN
Hughes, Harold A. Lt. (jg) USN
Johnson, K. H. Capt.
Kelly, Wm. H. Capt.
LeDuc, Don M. Lt. Comdr. USNR
Ley, Wilfred Lt.
McGillicuddy, O. B. Major
McGillicuddy, R. J. Capt.
Meade, Wm. H. Capt.
Mercer, Walter E. Capt.
Molnar, Stephen K. Lt.
Morrow, R. J. Capt.
Potter, Earl Lt. (jg) USN
Richards, F. D. Capt.
Richards, R. Capt.
Robson, E. J. Lt. Comdr. USN
Rozan, M. M. Lt. Comdr. USN
Sander, John F. Lt. Comdr. USN
Silverman, Irving E. Lt.
Spencer, Perry Lt. (sg) USN
Stiles, Frank Lt. Comdr. USN
★Sullivan, Ralph Lt.
Swartz, Frederick C. Major
Tamblyn, F. W. Lt. Comdr. USN
Thomas, Lucius G. Lt. Col.
Toothaker, Kenneth Lt. (sg) USN
Vander Zalm, T. P. Lt. Col.
Webb, Roy O. Capt.
Wellman, John M. Major

Ionia-Montcalm

Benison, A. L. Missing
Dunkin, Lloyd S. Major
Hansen, Carl M. Capt.
Kling, V. F. Lt.
Marston, Leo L. Lt.
Mintz, Morris J. Capt.
Seidel, Karl Lt.
Slagh, Milton E. Capt.
Van Loo, J. Capt.

Jackson

Ahronheim, J. H. Capt.
Appel, Saul Lt.
Bartholic, Francis W. Capt.
Cawley, Edward P. Capt.
Crowley, Edward D. Lt. Comdr. USN
Edmonds, John M. Capt.
Finton, Max Lt. (jg) USN
Finton, Walter F. Capt.
Gordon, Donald L. Lt. (jg) USN
Greenbaum, Harry Capt.
Hanna, Roger J. Major
Holst, John B. Capt.
LaVictoire, I. N. Lt. (sg) USN
Lake, Edward C. Capt.
Lenz, Chas. R. Lt.
Ludwick, John E. Lt. Comdr. USN
McLauthlin, Herbert B. Lt.
Meade, Robert Lt.
Miller, Jack L. Capt.
Murphy, Bernard M. Major
Otis, Grant L. Capt.
Ottoman, Richard Lt.
Scott, John A. Capt.
Seybold, Edward G. Capt.
Sirhal, Alfred M. Lt.
Southwick, W. A. Capt.
Sugar, Sam Capt.
Susskind, Myron V. Capt.
Tate, Cecil E. Lt.
Van Wagnen, Frederick I. Capt.
Vivirski, Edward E. Capt.
Walder, Harold Lt.
Wickham, Woodward A. Lt. (sg) USN
Oleksy, Stanley P. Lt.

Kalamazoo

Aach, Hugo Major
Andrews, Sherman E. Major
Bennett, Keith Major
Borgman, Wallace Capt.
Crawford, Kenneth Capt.
Dowd, Bernard Capt.
Doyle, F. M. Capt.
Fopeano, John Major
Fuller, Paul M. Major
Gilding, Joseph P. Capt.
Gray, Arthur S.
Hodgman, Albert B. Capt.
Holder, Chas. Capt.
Irwin, Wm. D. Capt.
Iseman, Joseph W. Major
Jackson, Howard Lt.
Kavanaugh, Wm. J. Capt.
Klerk, Wm. J. Lt.
Koestner, Paul A. Capt.
Kuhs, Milton Y. Lt.
MacGregor, John R. Capt.
Machin, Harold A. Capt.
Malone, James C. Capt.
McIntyre, Chas. H. Lt.
Marshall, Don Major
Moe, Carl Rex Lt.
Nell, Edward R. Lt.
Okun, Milton Capt.
Osborne, Chas. E. Lt.
Patmos, Martin Major
Peelen, J. William Capt.
Peelen, Matthew Major
Rigterink, Gerald Capt.
Ryan, Frederick Lt.
Schrier, Clarence M. Capt.
Schrier, Paul G. Lt. Comdr. USN
Schrier, Thomas Capt.
Scott, W. A. Major
Shaw, Geo. D. Capt.
Shook, Ralph Capt.
Siemsen, Wm. J. Major
Sofen, M. B. Capt.
Southworth, Maynard Lt.
TenHouten, Chas. Major
VerHage, Martin D. Lt.
Volderauer, John Capt.
Wagenaar, E. H. Major

Kent

Adams, F. A. Lt. Comdr. USN
Aitken, George T. Capt.
Alfenito, Felix S. Capt.
Balyeat, Gordon W. Lt.
Batts, Martin Capt.
Beaton, James H. Lt.
Beeman, Carl B. Capt.
Beets, W. Clarence Major
Bell, Charles M. Lt.
Bettison, Wm. L. Major
Boelkins, Richard C. Capt.
Boet, John Major
Brace, Fred Capt.
Brink, Russell Lt.
Buesing, O. R. Lt.
Carpenter, L. C. Capt.
Chadwick, W. L. Major
Collisi, Harrison S. Lt. Col.
Colvin, W. G. Capt.
Cosgrove, Wm. J. Capt.
Crane, Harold D. Lt. Comdr. USN
Damstra, H. J. Capt.
Davis, David B. Major
DeBoer, Clarence Lt.
DeBoer, Guy Wm. Capt.
DeVel, Leon Major
Dick, Mark W. Capt.
Dickstein, Bernard Capt.
Eaton, Robert M. Capt.
Failing, John F. Capt.
Farber, Charles E. Capt.
Fellows, Kenneth E. Capt.
Ferguson, James Capt.
Ferrand, Louis Capt.
Fitts, Ralph L. Capt.
Flynn, J. Donald Lt. USN
Frantz, Charles Lt. Col.
Freyling, Robert Lt. USN
Griffith, Lucien S. Major
Haeck, William Capt.
Hill, A. M. Major
Hilt, Lawrence Comdr. USN
Holdsworth, M. J. Capt.
Hollander, Stephan Capt.

Hoogerhyde, Jack Lt. Comdr. USN
Ingersoll, C. F. Major
Jameson, Fred M. Capt.
Kelly, Robert E. Lt. Comdr. USN
Klaus, C. D. Lt. USN
Kniskern, P. W. Capt.
Koontz, E. R. Capt.
Lentini, Joseph R. Capt.
McKenna, J. L. Capt.
MacDonald, Allen Lt.
Marrin, M. M. Lt. Col.
Miller, J. Duane Lt. Comdr. USN
Mitchell, H. C. Major
Moleski, Leo Capt.
Mouw, Richard Lt.
Murphy, M. J. Capt.
Nelson, A. R. Major
Payne, C. Allen Capt.
Pott, A. L. Capt.
Ralph, L. Paul Lt. Comdr. USN
Rogalski, Floyd Lt.
Roth, Emil M. Lt.
Schuitema, Donald Capt.
Sculley, Ray E. Capt.
Shellman, Millard W. Lt.
Sluyter, S. L. Lt.
Sluyter, J. S.
Steffensen, W. H. Capt.
Stover, Virgil E. Capt.
Swenson, H. C. Lt.
Tesseine, A. J. Capt.
Vander Meer, Ray Lt.
Van Solkema, Andrew Capt.
Van Solkema, Arthur Capt.
Van't Hof, Albert Lt.
Warmenhoven, Simon Lt. Col.
Webber, Jerome Lt.
Whalen, John Lt. Comdr.
Woodburne, A. R. Lt. Col.
Wurz, John Major
Yared, Jerome Lt.

Lapeer

Dorland, Clarke Capt.
Jackson, C. C. Capt.
McBride, J. R. Capt.

Lenawee

Beebe, I. J. Major
Campbell, C. A. Capt.
Claxton, W. T. Capt.
Hall, George C. Major
Hammel, H. H. Capt.
Helzerman, Ralph Capt.
Hinshaw, W. V. Capt.
Iler, H. D. Capt.
McCue, F. J., Jr. Lt.
McGarvey, M. R. Capt.
Miller, Perry Lynford Major
Pasternacki, Arthur Capt.
Patmos, Bernard Capt.
Rawson, A. P. Capt.
Rogers, John D. Capt.
Wynn, George H. Capt.

Livingston

Cameron, D. A. Capt.
Hayner, R. A. Capt.
Hill, Harold C. Lt. (sg)
Leslie, G. L. Major
Stephens, D. C. Lt. Comdr.

Luce

Lance, Paul E. Major
Surrell, Mathew A. Major
Swanson, George F. Lt. Col.

Macomb

Duerloo, H. W. Capt.
Dudzinski, Edmund J. Lt. (sg) USN
Huminski, T. S. Lt.
Klein, Wm. A. Lt.
Lance, Paul E. Major
Maguire, Andrew J. Lt. (sg) USN
Mattes, Max Lt.
Moran, F. T. Capt.
Mulligan, Phillip Capt.
Reichman, Joseph J. Capt.
Rivard, Chas. L. Capt.
Roth, Geo. E. Lt. (jg) USN
Rosenthal, S. A. Capt.
Rothman, Arthur M. Capt.
Salot, Russell F. Lt. Comdr. USN
Scher, J. N. Capt.
Stein, S. C. Lt.
Sylvan, Melvin M. Lt.
Wellard, Henry C. Major

★Died in Military Service.

Manistee

Hansen, Ernest C. Lt. Comdr. USN
Konopa, John F. Capt.
Ogilvie, Gordon D. Lt.

Marquette-Alger

Baron, B. C. Major
Bennett, Matthew Capt.
Bryce, James Capt.
Fennig, Foster Capt.
Hanelin, H. A. Lt.
Hornbogen, D. P. Lt. Comdr. USN
Janes, Grant Capt.
Lambert, Warren Capt.
Le Golvan, Paul Major
Nickolson, John Capt.
Niemi, Osmo I. Capt.
Schutz, W. J. Capt.

Mason

Commodo, Nicholas M. Capt.
Hoffman, Howard B. Capt.
Ostrander, Robert A. Capt.

Mecosta-Osceola-Lake

Ivkovich, Paul Lt.
Klein, J. Paul Lt.
Phillips, W. R. Capt.

Medical Society of North Central Counties

Lanting, Roelof Capt.
Leland, Sargent Lt.
McDowell, Douglas Lt.

Menominee

Heidenreich, John R. Major
Sethney, Walter Capt.

Midland

Meisel, Edward Lt.
VonHaitinger, Kalmon Capt.

Monroe

Barker, Vincent L. Comdr. USN
Bond, W. W. Capt.
Cohen, H. Herbert Lt.
Denman, Dean C. Lt. Comdr. USN
Flanders, J. P. Lt.
Goodman, Louis Capt.
Hunter, Marion A. Capt.
Lindquist, Paul Capt.
Long, Edgar C. Major
Penszotti, S. C. Capt.
Reisig, A. H. Capt.
Stolpestad, C. T. Capt.
Williams, Robt. J. Lt. Comdr. USN

Newaygo

Geerling, Lewis Lt.
Gordon, B. F. Lt.

Northern Michigan Medical Society

Conway, Wm. S. Capt.
Giffords, Mark Lt.
Miller, Samuel L. Major
Winter, Joseph A. Lt.
Lilga, Harris V. Capt.
Lentini, Nicholas Capt.
McCune, Wm. S. Lt.

Oakland

Abbott, Vernon C. Lt. Comdr. USN
Benning, C. H. USPHS
Boucher, Roman E. Lt.
Campbell, Mac D. Capt.
Caumartin, Hugh Lt.
Christie, J. W. Capt.
Cooper, Robert J. Lt. Comdr. USN
Dobski, E. J. Capt.
Domeier, L. H. Lt.
Faulconer, Albert Lt.
Flick, Earl J. Lt.
Foust, E. W. Capt.
Francis, Donald Lt.
Furlong, Harold Lt. Col.
Gately, C. R. Capt.
Gill, Matthew J. Lt.
Hammer, Carl W. Lt.
Hammonds, Everett E. Capt.
Hassberger, J. B. Lt. Comdr. USNR
Hoyt, D. F. Lt. Comdr. USNR
Hubert, John R. Capt.
Lass, Edward H. Lt.
Little, J. W. USPHS
McEvoy, F. J. Lt. Comdr. USN
Markley, John M. Lt.
Mason, Robert J. Lt. Comdr. USN
Morrell, Wm. B. Lt.
Moosman, B. A. Capt.
Needles, Francis H. Lt. USNR
Nosanchuck, Joseph Lt.
Olmacher, E. P. Major
Olsen, Richard E. Lt.
★Osgood, W. S. Capt.
Pauli, T. J. Major
Pelletier, Chas. J. Lt.
Porritt, Ross Major
Ports, Preston W. Lt.
Russell, Vincent P. Lt. USN
Schlecte, Erwin Carl Lt.
Schoenfeld, John B. Capt.
Shadley, M. L. Capt.
Smith, Carlton A. Lt.
Smith, Donald S. Lt. USN
Spencer, Floyd E. Capt.
Spohn, Earl W. Capt.
Stanley, Arthur Capt.
Stanley, Wm. F. Lt.
Stolpman, A. K. Lt. USN
★Terry, Stewart Lt. USN
Wagley, P. V. Major
Watson, Thomas Lt. USN
Williams, J. B. Lt.
Wentz, Arthur E. Lt. USN

Oceana

Flint, Charles Major
Lemke, Walter Capt.
Robinson, W. Gordon Lt.

Ontonagan

Rubinfeld, S. H. Capt.

Ottawa

Clark, Nelson
Cook, Carl
DeYoung, Fred
Hager, Ralph
Harms, H. P. Lt. Comdr. USN
Rypkema, Wm. Lt.
Timmerman, E. C.
Wells, Kenneth

Saginaw

Bishop, Mortimer H. Lt. Comdr.
Butler, Milton G. Capt.
Chisena, Peter R. Lt.
Cortopassi, Vitalis E. Capt.
Cory, Charles W. Capt.
Curts, James H. Lt. (sg) USN
Frantz, Charles H. Major
Gage, David P. Capt.
Gerber, Herbert Lt.
Grigg, Arthur P. Lt. USN
Hand, Eugene Lt. (sg) USN
Hester, E. G. Lt.
Immerman, Harold Capt.
James, John W. Capt.
Kerr, Wm. Lt. (jg) USN
Lurie, Robert Major
Luger, Fred Capt.
MacAlpine, O. D. Capt.
MacMeekin, James W. Lt. (sg) USN
Mauer, John A. Capt.
Morgrette, L. J. Capt.
Mudd, Richard Lt. Col.
Murray, Charles R. Lt. USN
Phillips, Homer A. Lt.
Potvin, Clifford Capt.
Richards, Ned W. Capt.
Richter, Harry J. Lt. (sg) USN
Ryan, Richard S. Lt. Comdr.
Sargent, Donald V. Lt.
Schneider, A. Lt.
Schultz, Frank Lt.
Sheldon, Suel A. Comdr. USN
Skrowronski, Casimer A. Lt.
Slack, Walter K. Lt. Comdr. USN
Stander, Carl A. Capt.
Stewart, George Wm. Capt.
Thompson, Arthur B. Lt.
Tiedke, Gunther E. Lt. Comdr. USN
Wallace, Herbert C. Major
Yntema, Stuart Major

Sanilac

Koch, Donald A. Lt.
Norgaard, Hal V. Capt.

Shiawassee

Backe, John C. Capt.
Brandel, John M. Capt.
Brown, Richard J. Lt.
Buzzard, Walter D. Lt.
Janci, Julius S. Lt.
Kaufman, H. J. Lt.
Linden, V. E. Lt.
McKnight, Edwin R. Capt.
Shepherd, Walter F. Capt.
Slagh, E. M. Lt.
Wilcox, C. M. Capt.

St. Clair

Bigger, Robert J. Lt (sg) USN
Clyne, Benjamin C. Capt.
Kirker, F. O. Capt.
LeGalley, Kenneth B. Capt.
Licker, Rueben R. Lt.
Ludwig, Frederick A. Lt. (sg) USN
Witter, G. L. Major

St. Joseph

Berg, L. A. Lt. USN
Buell, M. F. USPHS
Fiegel, S. Albert Lt. USN
Hoekman, Aben Capt.
Holm, A. G. Capt.
Raisch, Frederick J. Lt.
Rice, John Wesley Lt. USN
Shaw, Geo. D. Capt.
Sheldon, John Lt.
Zimont, R. D. Lt.

Tuscola

Fisher, R. D. Lt.
Gugino, Frank J. Lt.
Hoffman, T. E. Lt. Comdr. USN
Vail, H. E. Capt.

Van Buren

Diephuis, Bert Capt.
Gano, Avison Capt.
Giddings, Ralph R. Capt.
Hall, Edward J. Capt.
Hasty, Willis Arthur Capt.
Iseman, J. W. Capt.
Terwilliger, Edwin Major
TenHouten, Charles Capt.

Washtenaw

Agate, George H.
Armstrong, Richard C. Lt.
Avery, Noyes L.
Baer, Louis S. Lt.
Barnes, Allan C. Capt.
Bauer, Gerhard H.
Block, Malcolm Lt.
Browns, Hershall L.
Bryan, John A.
Bullington, Bert M.
Bulmer, Dan J. Major
Buscaglia, J. C. Lt.
Butler, Wm.
Byrn, Robert W. Capt.
Cochran, Wm. L. Lt.
Conger, Kyril B. Capt.
Cook, Eugene L. Lt.
Cooper, Ralph R. Capt.
Courville, Chas. G. Capt.
Crabtree, Peter Capt.
Craig, James B. Capt.
Craig, Wm. R. Lt.
Davis, Fenimore E. Major
Day, A. Jackson Lt.
Denham, Robert
Diamond, Barnard L.
Dimitroff, Sim
Douglas, James B. Lt.
Dowman, Chas. E.
Due, Floyd O. Lt.
Duff, Ivan F.
Farrior, J. Brown Capt.
Ferber, Leon
Fink, Myron Lt.
Fitzgerald, Thomas D. Capt.
French, H. A.
Frohlich, Moses M. Major
Fuller, Wm. C. Lt.
Gardiner, Sprague Capt.
Gass, H. Harvey Lt.
Goldhamer, S. M. Major
Greene, Mervin E. Lt.
Gustafson, Jack R. Lt.
Hagerman, Geo. W. Capt.
Hammond, George Major
Harris, B. M. Lt. Comdr. USN
High, Howard C., Jr. Lt.
Hirschfeld, Alexander Lt.
Houston, Wm.

Washtenaw (Continued)

Howes, Homer A. Capt.
Hunt, H. Homer
Jackson, Raymond S. Lt.
Jackson, Richard G. Lt.
Jackson, Robert T. Lt.
Jay, Baird
Jennings, Hal. B. Lt.
Johnson, L. J. Lt. Comdr.
Joistead, Arthur H. Capt.
Jones, Ellis Lt.
Jordan, Paul H. Capt.
Kahn, Edgar A. Lt. Col.
Keller, Arthur P. Capt.
Kiehn, Clifford L. Capt.
Kimbrough, Robert C.
King, Walter
Lapides, Jack Lt.
Levin, Manuel
List, Martin L. Lt.
Little, Sam C. Lt.
Locklin, W. Kaye
Lowell, Vivion F. Capt.
Lusk, Harry A. Lt.
MacIntyre, Dugald S.
MacLean, Kenneth F. Lt.
Maddock, Walter G. Col.
Marks, Frederick
Marshall, John S. Lt.
Miller, Harold V. Capt.
Mills, Richard W. Lt.
Mollin, Edwin Lt.
Moore, Donald Floyd Lt.
Muehlig, G. Kenneth Capt.
Mueller, Robert J. Lt.
Mundt, Leslie
Musselman, Merle
Nunnemaker, John C. Capt.
Oliver, Richard Lt.
Palmer, A. A.
Pederson, Svend
Power, Frank H. Lt.
Quarton, Albert E.
Rague, Paul O. Capt.
Reiff, Wm. H. Lt.
Reynolds, Stephen Lt.
Rower, Peter
Runge, Paul W.
Russell, Stuart W. Lt.
Sachs, Allen E.
Salon, Dayton D. Capt.
Saunders, Allen Lt.
Schopp, Alvin
Scott, Robert Redvers
Scott, Wm. C. Lt.
Scurry, Maurice McL. Lt.
Sheldon, John M. Major
Singleton, Albert O. Lt.
Slaughter, John C.
Sludder, Gerald A.
Smith, Joseph G.
Snyder, Robert D. Capt.
Steffe, Ralph S. Lt.
Stevens, Harold Lt.
Stewart, Wayne H. Lt.
Strayer, John W. Lt.
Sweet, Robert B.
Teed, Wallace R. Lt. Comdr. USN
Thieme, E. Thurston Capt.
Thirlby, Richard L. Lt.
Thomson, Daniel C.
Thomson, John W.
Towsley, Harry A. Major
Uphold, Henry
Volk, William L.
Waldron, Alexander M.
Weeks, Wm. F. Lt.
Whitaker, Spires
Wile, Udo J. Col. USPHS
Wilkinson, Charles F.
Wilson, Claude D. Lt.
Windrow, Frank H. Capt.
Wright, Edwin M. Lt.

Wayne

Abruzzo, Anthony M. Capt.
Adelson, Sidney L. Capt.
Adler, Sidney Lt. (jg)
Agin, Lambert J. Lt.
Albert, Samuel
Aldrich, Napier USPHS
Ale, Thompson
Alexander, Martin M. Lt.
Alm, Bernard T. Lt. Col.
Alper, Louis Lt.
Altshuler, Samuel S. Major
Anderson, John Wm. Lt.
Anderson, Gordon H. Lt.
Anderson, R. F. Lt.
Anderson, Walter L. Capt.
Anderson, Walter T. Capt.
Andre, Harvey M. Lt.

Wayne (Continued)

Andrews, Raymond, Jr.
Angell, Howard H. Lt.
Arehart, Burke W. Lt.
Arminski, Thomas C.
Arms, A. V.
Armstrong, John Wm.
Ascher, Meyer S. Lt. (sg)
Ashley, L. Byron Lt. Col.
Askwig, Leroy C. Major
Asselin, Dean R. Lt.
Asselin, Regis F. Lt.
Atler, Leroy Capt.
August, Harry E. Major
Babcock, Kenneth B. Major
Bader, B. H. Capt.
Bagley, Harry E. Capt.
Bailey, Carl C. Capt.
Bailey, John H. U. S. Army
Bailey, Wm. J. Lt.
Baker, Wm. S., Jr. USN
Balberor, Harry Lt.
Barak, Lewis R.
Barenholtz, Benjamin
Barnett, Louis L. Capt.
Barr, Edward
Barron, James
Bates, Gaylord S. Lt. Comdr. USN
Bauer, L. E. Lt. Comdr. USN
Baumer, Moe Capt.
Bausch, Richard G.
Beam, A. Duane Lt.
Beck, Carl H.
Becker, Abraham Capt.
Beckwitt, Morris C. Capt.
Beer, John Lt.
Beer, Joseph Lt.
Beers, Morrison D. Lt.
Beeuwkes, L. E. Capt.
Beitman, Max Lt.
Belanger, Ernest Lt.
Belanger, Wm. Geo. Lt.
Belisle, John A.
Belknap, Warren F. Lt.
Bennett, Matthew C. Capt.
Benson, C. D. Lt. Comdr. USN
Benson, Davis A. Lt.
Benzing, Wm. M., Jr.
Beresh, Louis Capt.
Bergman, Theodore I. Capt.
Bergo, Howard L. Capt.
Berkow, Kenneth A. Capt.
Berlien, Ivan C. Capt.
Bermel, John USN
Berman, Sidney Lt. Comdr. USN
Bernstein, Samuel S. Capt.
Berry, Robt. E. L. Lt.
Besancon, J. H. Lt. Comdr. USN
Best, John Wm. Lt.
Bertucci, R. Joseph
Bicknell, Edgar A. Capt.
Bickenell, Frank B. Capt.
Biery, Martin Luther Capt.
Binkley, Edward L. US Army
Birch, John R. Capt.
Birndorf, Leonard Lt.
Black, Franklin R.
Blake, Henry S. US Army
Blain, James H. Capt.
Blashill, James B. Capt.
Blodgett, Wm. H. Capt.
Boccaccio, John Lt.
Boccia, James J.
Bohn, Stephen Lt. USN
Boileau, Thornton I. Lt.
Boles, A. E. Lt.
Bookstein, Abraham Lt.
Bott, Edmund Thomas
Bovill, E. G. Lt. Comdr. USN
Boyd, John C.
Bradford, Henry Lt.
Bradley, Geo. T.
Brancheau, L. T. Lt.
Braun, Lionel Capt.
Brines, O. A. Lt. Comdr. USN
Bringard, E. L. Capt.
Britton, Geo. T. Lt.
Bromme, Wm. Major
Brooks, Chas. W. Capt.
Brooks, Mason
Brooks, Nathan Lt.
Brough, Glenn Lt. Comdr. USN
Brown, Andrew G.
Brown, Carlton F. Capt.
Brown, John R. Lt. Comdr.
Brown, Marion G. Lt. USA
Brown, Robt. W. USA
Brownell, Paul G. Capt.
Bruer, Edwin Louis USA
Bryan, Donald I.
Bryce, John D. Lt. Comdr. USN
Buchner, Harold W. Capt.
Buell, Martin

Wayne (Continued)

Burgess, Woodrow W.
Burroughs, Rosswell G.
Burnstein, Perry P. Capt.
Bush, Glendon J. Capt.
Butler, Frank J. USA
Caldwell, J. Ewart Lt. Col.
Calkins, H. N. Capt.
Callaghan, T. T. Major
Campbell, Chas. A. USN
Campbell, Mac. D. Capt.
Campbell, Wm. J. Lt.
Caplan, Leslie Capt.
Caraway, James E. Capt.
Carnes, Harry E. Capt.
Carp. Joseph Capt.
Carron, Harold Lt.
Carstens, Henry R. Col.
Carstenson, Vincent H. Lt.
Carter, Harold G. Lt.
Cathcart, Edward Lt. Comdr. USN
Caumartin, Hugh
Caughey, Edgar H. Lt.
Cavell, Roscoe Lt. Col.
Chapnick, H. A. Capt.
Chason, Jacob L. USA
Chesluk, Herman M. Capt.
Childs, Geo. M. Capt.
Chittenden, Geo. E. Major
Christenson, Robt. C. USA
Chudnoff, Jack S.
Cigany, Zoltan B. Lt.
Clark, Benj. W. Lt. Comdr. USN
Clark, James Y.
Clarke, Niles A. Capt.
Clifford, John E. Capt.
Clifford, Robt. P. Lt.
Cohn, Daniel E. Capt.
Cole, Wyman, C. C. Lt. Col.
Collins, Arthur D. Capt.
Conn, Harold Lt.
Conn, Raymond W. Lt.
Conrad, C. D.
Conrad, Maynard M.
Cook, James A. Lt.
Cook, James C.
Cooley, John B. Lt.
Cooper, Benj. F.
Corrigan, Edmund USN
Coucke, Henry O. Capt.
Cowan, John S. Lt.
Cowley, Leonard L.
Crane, Thomas P.
Cretsinger, Francis Lt.
Crews, Thomas H.
Croll, Lee J. Capt.
Croll, Maurice Lt.
Cross, Kenneth R. Lt.
Croushore, James E. Major
Crowley, Robt. T. Capt.
Culp, Ormond Capt.
Culver, Dean T.
Cummings, Kenneth L.
Czeresko, Anthony R.
Dale, Mark
Daly, Byrne M. Lt.
Dana, Harold M. Major
Daughtry, Dewitt C. Asst. Surg. USPHS
Davidson, Harry O. Capt.
Davies, Windsor S. Lt.
Davis, Geo. H. Lt. Comdr. USN
Davis, Linden Lee Major
Davis, Wm. H.
Day, J. Claude Lt. USN
Deering, Robt. James Capt.
Defever, Cyril R. Lt. Comdr.
DeCroat, Albert Major
Delbert, Stewart G. Capt.
Deming, Edward G. USA
Dennis, Melvin S. Lt.
Deresz, Alphonse R. USA
Derleth, Paul E. Lt.
Deutsch, Wm. L. Lt.
Day, Jack Lt.
Dickman, Harry M. Lt.
Dilihant, Jack Capt.
DiLoreto, Panfilio Camillo Lt.
Diskin, Herman Lt.
Dixon, Fred W. Lt.
Dixon, Ralph C. Lt.
Doerr, Louis E. Capt.
Dolega, Stanley F. Capt.
Domeier, Luverne H.
Donald, Douglas Major
Donovan, Richard S. Lt.
Doran, Joseph K.
Douglas, Clair L. Major
Douns, James T. USA
Drake, Ellet H. USPHS
Ducey, Edward F.
Duchesneau, Ferdinand Lt.
Dunlap, Gregg L. USA
Durham, Everett W. USA
Durocher, Normand E. Lt.
Durocher, Raymond
Dwyer, Francis Lt. Comdr. USN
Dziuba, John F. Lt.
Eades, Charles C. Capt.
Easley, John H. Capt.
Eder, Joseph R. Capt.
Edmundson, Robt. B. Lt.
Ellias, Elmer P.
Ellis, Calvin C.
Ellis, Seth W. Major
End, Jack A.
Engel, Earl H. Lt. Comdr. USN
Eno, Laurel S. Lt.
Ersfeld, Murray P. Lt.
Eschbach, Joseph W. Capt.
Evans, Wm. A. Capt.
Ewing, C. H. Capt.
Exum, Wm. A.
Falick, Mordecai L. Capt.
Fandrich, Theodore Lt.
Feigelman, Meyer J. Lt.
Feldkamp, Les E. Lt.
Feldman, Nathaniel L. Major
Feldman, Milton
Feldman, Paul P. Lt.
Feldstein, Martin Z. Capt.
Fenech, Harold B. Major
Fenton, Meryl M. Capt.
Ferguson, Franklin F. Major
Ferrara, Louis V. Lt.
Finch, Sinclair F.
Finlayson, Donald D. Lt. (jg) USN
Finton, Max A.
Fischer, Frederick J. Capt.
Fischer, Willard E.
Fisher, Geo. S. Lt.
Fitzgerald, E. W. Lt. Comdr. USN
Fitzgerald, James M. Capt.
Flaherty, N. W. Capt.
Flood, Richard E. Lt.
Flora, Wm. R. Lt. Comdr. USN
Florentz, Theodore R. Lt.
Ford, Sylvester Capt.
Forsythe, John R. Major
Foster, Alfred R.
Foster, E. Bruce Capt.
Fralik, Howard E. USA
Francis, Donald
Fraser, Harvey E. Capt.
Free, Harry W. Capt.
Freedland, Morris
Freedman, John Capt.
Fremont, J. Courtney Lt. Comdr. USN
Fried, Bernard H. Lt.
Friedlander, Sidney Capt.
Frostic, Wm. D. Lt.
Fuller, Hugh M. Capt.
Gaba, Howard Lt.
Gabe, Sigmund Capt.
Gaines, Sidney
Gardner, Joe Harris Lt.
Gaston, Herbert B. Lt.
Geib, Wayne A. Capt.
Geise, Harold Lt.
Gill, John N.
Gilmore, John R. Lt.
Gingold, Samuel M. Lt.
Gingrich, Wayne A. Capt.
Ginsberg, Harold I. Lt.
Gitlin, Chas. Capt.
Gladman, Arthur E.
Glattauer, Alfred USA
Glickman, G. L. Capt.
Glodt, Herbert R.
Goder, Geo. A. Capt.
Goetz, Angus G. Lt. Comdr. USN
Goldberg, Arthur Lt.
Goldin, M. I. Lt.
Goldman, Aubrey Lt.
Goldman, Bernard J.
Goldman, Perry Lt.
Goldstone, Beris A.
Goley, Donald E. USPHS
Gollman, Maurice D. Capt.
Good, Wm. H., Jr. Capt.
Goodman, Louis
Goodman, Max USA
Goodrich, Benj. E. Lt. Comdr. USN
Gordon, Devitt L. Lt.
Gordon, Wm. H. Col.
★Gorelick, Harry S.
Gorelick, Martin J. Capt.
Goryl, Stephen B. Lt.
Goss, S. B. Lt.
Gourley, Eugene V. Major
Gradis, Howard H.
Grant, Gordon Lt. USN
Gray, Arthur S.
Green, Louis M. Lt.
Green, Sydney H. Lt.
Greenberg, Julius J. Lt.
Greenberg, Morris Z. Major
Greenwood, J. Harrison USN
Grimaldi, Gregory J. Lt. USN
Groscost, Arthur G.
Grossman, S. C. Capt.
Gutman, Emil Lt.
Gutow, B. R. Capt.
Gutterman, Meyer A. USA
Halper, Bernard
Hamburger, Albert C. Capt.
Hammer, Howard J. Capt.
Hammer, John M. Capt.
Hammer, Raymond Lt.
Hanelin, Joseph Lt.
Hankins, Chas. R. Lt.
Hanna, Carl Lt. Col.
Hanson, Curtis M. USA
Hanson, Frederick M. Lt.
Hargrave, Dudley W. USA
Harley, Garth W. USA
Harper, Jesse T. Major
Harrel, D. G. Capt.
Harris, Harold H. Lt. Comdr. USN
Hart, Chas. E. Lt.
Hart, John C. Lt.
Harryman, James E. USA
Hartzell, John B. Lt. Comdr.
Harvey, Edward R., Jr. USA
Hause, Glen E. Capt.
Hauser, Jerome I. Capt.
Hauser, M. J. USA
Hays, A. L.
Heavner, Lyle E. Lt.
Heideman, Louis E. Lt.
Hein, Richard J. Lt.
Henderson, A. B. Lt.
Henderson, Richard G.
Henderson, Wm. W. Lt.
Hendricks, Roger C.
Heneveld, Edward H.
Henig, Fred USPHS
Henry, Chas. M. Capt.
Henry, Joseph R.
Herbert, Walter N. Lt.
Herkimer, Daniel R. Lt. Comdr. USN
Herschelmann, Roy F. Lt.
Herwick, John T. USA
Hewitt, Robt. S. Capt.
Hileman, Walter
Hill, John R. Lt.
Hillenbrand, Alfred E. Capt.
Hilsenbeck, John R. USA
Hodges, Jason USA
Hodgkinson, C. P. Capt.
Hoffman, Harry Y.
Hoffman, Henry A. Capt.
Holden, M. H.
Hollingsworth, Robt. S.
Holman, Herbert H. Capt.
Holstein, Arthur P. Lt.
Hooker, Donald H. Capt.
Hookey, John A. Capt.
Hoopes, Benj. F. Lt. Comdr. USN
Horan, Thomas N. Major
Horny, Hugo Lt.
Horwitz, John B. Capt.
Hotchkiss, Wm. S.
Howard, Merildeen W.
Hoyt, Arthur W. Lt.
Hubbard, Robt. D. USA
Huegli, W. A. Lt.
Huff, Ralph H. Lt.
Huffman, Elson R. Lt.
Hummel, Arthur Lt.
Hunt, Homer H. USA
Hyatt, Jarvis M. Capt.
Hyman, Samuel Lt.
Iacobell, Peter H. Lt.
Ihle, Lyman E. Capt.
Israel, Barney B. Capt.
Iverson, Preston C.
Ivkovich, Peter Lt.
Jackson. H. H., Jr. USN
Jacoby, Jack M. Lt. (jg) USN
Jaffe, J. L.
Jaffe, Louis Capt.
Janes, R. Capt.
Janton, Otto H. Lt. (jg) USN
Jasion, Lawrence J. Capt.
Jenkins, Elwood A. Lt.
Jennings, Robt. M. Lt.
Johnson, Clarence E.
Johnson, Franklin Lt.
Johnson, Richard E. Lt (jg) USN
Johnson, Tom D.
Johnston, Charles G. Lt. Comdr. USN
Jones, Horace C. Lt. Comdr. USN
Jones, Wm. E.
Jordan, Prescott, Jr.
Joyce, G.

★Died in Military Service.

Wayne (Continued)

Joyce, Stanley J. Lt. Comdr. USN
Juliar, Benjamin Lt.
Kallman, Rueben R. Lt. Comdr. USN
Kanter, Herman Capt.
Kaplita, Walter A. Lt.
Kass, Arnold
Kauffman, Wm. Capt.
Kay, Harry H. Lt.
Kazdan, Louis L. Lt.
Kazdan, Morris A. Capt.
Keene, Clifford H. Capt.
★ Kelley, Frank J.
Kelly, Alfred J. USA
Kelly, Wendell USPHS
Kendig, Tom Lt.
Kennedy, Donald J. Lt.
Kernick, Melvin O. Capt.
Kerr, Wm. B. USA
Kersker, Peter B. USPHS
Keyes, John W. Capt.
Kimball, David C. Lt. Comdr. USN
Kimberlin, Kenneth K. Lt.
King, Melbourne J. Lt.
Kingsley, Summer B.
Klein, Cyrus P. Lt.
Kitzmiller, John L.
Klinkowstein, Alex
Knaggs, Earl J. Lt.
Knapp, Byron S. Capt.
Knapp, Wm. D.
Knoch, Hubert S. Lt.
Kohn, Arthur M. Capt.
Kohn, Max Capt.
Kokowicz, Raymond J. Lt.
Koon, Wm. D. Lt.
Kosanovic, Frederick Lt.
Koss, Frank R. Capt.
Kossayda, Adam W. Lt.
Kovan, Dennis D. Capt.
Kove, Simon
Kozlinski, Anthony E. Lt. (sg) USN
Krass, E. W. Major
Kucmierz, Francis S. Lt.
Kuhn, A. Albert Lt.
Kuhn, Richard F. Lt.
Kuhn, Robt. USA
Kullman, Harold J. Lt. Comdr. USN
Kurcz, Joseph A. Capt.
LaBerge, James M. Capt.
LaCore, Ivan A. Capt.
Lammy, James V. Major
Lange, Wm. A. Capt.
Lansky, Mandell Lt.
Lapham, Fred Lt.
LaRue, Robert E. Lt.
Laub, Stanley V. Lt. Comdr. USN
Lauppe, Frederick A. Capt.
Lawton, Alfred H. USPHS
Lazar, Morton R. Lt.
Lazarski, K. M. USN
Leach, David Capt.
LeGallee, G. M. Lt. Comdr. USN
Lehman, Wm. L. Lt. (jg) USN
Leipsitz, L. S. Lt.
Leland, Soloman Lt.
Lemmon, Chas. E. Major
Lentine, James J. Lt.
Lepisto, Victor E.
Levigood, Floyd B. Capt.
Levant, Arthur B. Lt.
Levin, David M. Capt.
Levin, Michael M. Capt.
Levin, Samuel J. Lt. Comdr. USN
Levine, Edward E. Lt.
Lewis, J. Hugh Major
Lewis, Wilfrid John Capt.
Lichter, M. L. Lt.
Lipschutz, Louis S. Major
Lipton, Raymond F.
List, Harold E.
Livingston, Geo. D. Lt.
Lofstrom, James R. Major
Long, John J. Capt.
Longyear, Harold W. Lt.
Loomis, Frederick C.
Loranger, Guy L. Capt.
Lorber, Joseph H. Lt.
Lord, Herman M. Capt.
Lovas, Wm. S. Lt.
Lowenstine, Adolf W.
Lukas, John R.
Lum, T. K. Capt.
Lund, Anthony J.
Lynch, Chas. H.
Lynch, Vincent A.
Lynk, Stanley M. USA
McCadie, James H. USA
McCauley, Morris D. Lt.
McClure, Robert W. Capt.
McColl, Charles W. Capt.
McCullough, Francis E. Lt.
McCollum, E. B. Capt.
McDonald, Peter W. Capt.
McGarvah, Joseph A. Lt.
McGlaughlan, Nicholas D.
McGough, Joseph M. Capt.
McGraw, Arthur B. Lt. Comdr. USN
McGuire, Ivan A. USA
McIntyre, Wm. B. USN
McKean, G. T. Capt.
McKean, Richard M. Lt. Col.
McKenna, Chas. J. Capt.
McLean, Don W. Capt.
McNickle, Jerry H. USA
McQuiggan, Paul F. Capt.
McRae, James H. USA
Mabley, J. Donald Major
Mack, Harold C. Capt.
MacMillan, James M. Capt.
Maibauer, F. P. Capt.
Maire, Edward D. Capt.
Maire, Harold U. Capt.
Maison, Geo. L.
Mandiberg, Jack N. Lt.
Maples, Douglas E. Lt.
Maresh, E. R. Lt.
Marino, Chas. J.
Marion, Donald F. Capt.
Mark, Jerome Capt.
Marks, Ben Capt.
Markus, Ervin Capt.
Marshall, Millard R. Lt.
Martin, Peter A. Lt.
Martin, Richard D. Lt.
Martinson, Donald L. Lt. (jg) USN
Martmer, Edgar E. Capt.
Marwil, Thomas B. Lt. Comdr. USN
Matson, Guy M. USA
Mattes, Max W.
Matthews, Harry C. Lt.
Maxfield, Jack E. USA
May, Frederick T., Jr. Major
Mayne, C. H.
Merritt, Harry E. USA
Meyers, Maurice P. Major
Meyers, Soloman G. Major
Middleton, J. W. Lt.
Miller, Harry Capt.
Miller, Harry A., Jr. Capt.
Miller, Hugh Lt (jg) USN
Miller, Karl L. Capt.
Miller, Kenneth T. Major
Miller, Thomas H. Lt. Comdr. USN
Mills, Clinton C. Capt.
Min, Henry
Mindlin, R. L.
Miro, Morey D.
Mitchell, W. Bede Capt.
Moloney, J. Clarke Lt. Comdr. USN
Montante, Joseph R. Capt.
Morley, Harold V. Lt.
Morris, Roger
Morrow, Rufus C.
Morton, David G. Capt.
Muehlig, Geo. K.
Munslow, Ralph A.
Murphy, Donald J. Lt. Comdr. USN
Murphy, Frank J. Lt. Comdr. USN
Murphy, John M. Capt.
Muse, Jesse, Philip USA
Muske, Paul H. Lt.
Manning, John E. Capt.
Nagel, Oscar Capt.
Napolitano, Donald F.
Neeb, Walter, G. Capt.
Nelson, Victor E. Capt.
Newcomer, Sheldon R. Lt.
Newell, Phillip D. Lt. (jg) USN
Nichamin, Samuel J. USPHS
Nickels, Albert W. Capt.
Nickerson, I. D. Lt.
Nielsen, Aage E. Capt.
Nigg, Herbert L. Lt.
Nigro, Norman D. Lt.
Noer, Rudolph J. Major
Nolting, Wilfrid S. Lt.
Norconk, A. A. Lt. Comdr. USN
Noreen, H. A.
Novak, Walter S.
O'Donnell, Dayton H. Lt. Comdr. USN
Olechowski, Leo W. Lt. Comdr. USN
Olenikoff, Alex
Olmstead, Geo. USA
O'Linn, Francis P.
Oppenheim, Joseph M. Lt.
Orr, Robert W.
Orris, Israel
Osius, Eugene A. Lt. Comdr. USN
Ott, Harold A. Capt.
Ottaway, John P. Lt.
Owen, Clarence I. Lt. Col.
Oxman, Albert C.
Parker, Benj. R. Lt.
Patterson, Donald S.
Patton, Henry S. Lt.
Paye, H.
Peggs, Geo. F.
Pelczar, Walter E. USA
Pelletier, Charles J.
Penberthy, Grover C. Col.
Pensler, Leslie USA
Pensler, Meyer M. Lt.
Perkin, Frank S. Major
Perlin, Michael H.
Perry, Alvin L. Lt.
Peterson, Edwin P. USA
Pettit, Vernon D.
Pfeffer, Isadore S. Lt.
Phillips, Francis J. Lt.
Pike, Donald G. USA
Pliskow, Harold Lt.
Podewza, J. W. Lt.
Poole, Marsh W. Major
Porritt, Ross J.
Pratt, L. A. Major
Prentice, Edwin W.
Price, Alvin E. Major
Procailo, Alex B. USAAC
Pugh, Howard C.
Pugsley, G. W., Jr. Capt.
Putra, Anthony M. Capt.
Pendy, John M. Lt.
Quigley, Eugene C. Capt.
Rahm, Lambert P. Capt.
Rather, L. J. USA
Ravitz, Harold G. Lt.
Raw, Frederick W. Lt.
Redding, Lowell G. Lt.
Reder, B. USA
Reid, J. Gilbert Capt.
Reid, Wesley G. Capt.
Reiff, Morris V. Lt.
Reinsh, Ernest R. Lt. Comdr. USN
Reisman, Samuel G. Lt.
Reske, Alvin A. Capt.
Rey, Geo. E. Lt.
Reynolds, Wm. F.
Rice, Clair M., Jr. Lt.
Rice, Robt. B. Lt.
Richey, Bert R. Capt.
Richmond, Marion B. USPHS
Rickert, R. G.
Riggs, Geo. T. Lt.
Riggs, Harry L. USA
Rivera, Victor USA
Robin, Herman
Robinson, H. A. Major
Rogoff, A. S. Capt.
Rom, Jack Capt.
Roman, Stanley J. Capt.
Roney, A. A. Lt.
Roney, E. H. Capt.
Root, Charles T. Major
Rosenberger, Homer G. Lt.
Rosenthal, Louis H. Lt.
Ross, Arno Lt. Comdr. USN
Ross, Benjamin C. Lt.
Ross, Hyman Lt.
Ross, Samuel J. USPHS
Roth, Theodore I. Lt. Comdr. USN
Rottenberg, Leon Lt.
Rottschafer, Gerald USA
Rowell, Robt. C. Capt.
Rowell, Wilfrid J. Capt.
Rubright, Le Roy W. Capt.
Rueger, Milton J. Capt.
Runde, Harold E. USA
Runge, Paul Wm. Lt.
Rupprecht, Emil F. Capt.
Ruskin, D. B. Lt.
Russell, Vincent Lt.
Sack, Anthony G. Capt.
Sachs, Herman K. Capt.
Sanders, John H.
Sandler, Nathaniel Capt.
Sanford, Hawley S. Capt.
Sapala, Marion A. USAAC
Sayre, Geo. S. USN
Schafer, Robt. L. Lt. Comdr. USN
Scarney, Herman D. Lt. Comdr. USN
Schlesinger, Henry USAAC
Schmaltz, John D. USA
Schmidt, Harry E. Capt.
Schmidt, J. Robt. Lt.
Schmidt, Milton R. Lt. Comdr. USN
Schneider, Curt P. Lt. Comdr. USN
Schneider, Richard Lt.
Schoenfeld, John B.
Schofield, Norman D.
Schroeder, Carlisle F. Capt.
Schug, Richard H. Lt.
Schultz, Robt. F. Capt.
Schwab, Roland E.
Schwartz, Louis A. Lt. Comdr. USN
Schwartz, Oscar D. Major
Schwartzberg, Joseph A. Lt.

★Died in Military Service.

Wayne (Continued)

Schweigert, C. F. Lt.
Scott, Robert J. Capt.
Seliady, Joseph E. Capt.
Seski, Arthur G. USA
Shaffer, Joseph H. Major
Shapiro, Isadore A. Capt.
Shapiro, Reuben I. Lt.
Sharp, Mahlon S. Lt.
Shaver, Benjamin
Shebasta, Emil M. Capt.
Sheffrin, Peter Lt.
Shelton, Carl F. Capt.
Sheppard, Wm. B. Lt.
Sherrin, Edgar R. Lt. (sg) USN
Shewchuk, Alex P. Capt.
Shifrin, Peter G. Lt.
Shiovitz, Louis
Shulak, Irving B. Capt.
Shumaker, Edward J. Lt.
Sickels, Edward W. Lt.
Siegel, Henry Capt.
Sill, Jack A. USN
Simons, Edward J. Lt.
Skolnick, Max Lt.
Skopek, Frank S. Lt.
Skully, G. A. Capt.
Slevin, John G. Col.
Sliwin, Edward P. Lt.
Slutzy, Joseph USAAC
Small, Henry Capt.
Smeltzer, Merrill Capt.
Smith, Fred R. Lt.
Smith, Geo. E. USA
Smith, Wm. S. Capt.
Smyka, Edward J. Lt.
Snedeker, Bernard C. Capt.
Snyder, L. J. Lt.
Socall, Charles J. Capt.
Somers, D. C. Major
Sorock, Milton Capt.
Sorum, Eugene B. USN
Spalding, Edward Lt. Col.
Sparling, Harold Capt.
Spector, Maurice J. Lt.
Spencer, Samuel
Speirs, Richard E. Lt.
Spiro, Adolph Capt.
Spitzer, Henry USA
Sprunk, Carl J. Capt.
Spurrier, Ethelbert Lt. Comdr. USN
Stack, David R., Jr. Lt.
Stageman, J. C. Capt.
Stamell, Meyer Lt.
Stammell, Benj. B. Lt.
Stamos, H. F. Lt. Comdr. USN
Stanley, Sherburn Lt.
Stebbins, Charles E.
Stefani, Raymond T. Capt.
Steffensen, Ellis H. Lt.
Steffes, Everett M. Lt.
Stein, Albert H. Lt.
Stein, Edward Lt.
Stein, Saul C. Lt.
Steiner, Max Capt.
Steinhardt, Milton J. Capt.
Steinfield, Winton
Stobbe, Godfrey D. Capt.
Stocker, Lawrence L. USA
Stockwell, Benjamin W. Capt.
Stokfisz, Thaddeus Capt.
Stoll, Edward M. Lt.
Stone, E. L.
Stone, Sanford Lt.
Strand, Martin E.
Strickroot, Fred L. Lt. (jg) USN
Sugar, Hyman S.
Sugarman, Marcus H. Capt.
Sullenberger, Neil Lt.
Summers, Wm. A. Lt.
Swaney, Colletta Lt. USN
Swartz, Fred G. USA
Sykes, Edwin M., Jr.
Sylvan, M. M. Lt.
Symons, Hyman Lt.
Szabunia, Sigmund C. USA
Szejda, J. C. Lt.
Szlachetka, Vincent E. Capt.
Taylor, Ivan B. Capt.
Taylor, Nelson N. Capt.
Taxman, Joel E. USN
Tear, Malcolm J. Lt.
Teitelbaum, Myer Capt.
Tellman, H. Clay
Tenaglia, Edward
Tenaglia, Thomas A. Lt.
Thompson, Chase S.
Thompson, Frank J.
Thompson, H. O. Capt.
Thurston, Roger G. Lt.
Timmons, John R. Capt.
Trapp, Donald G. Lt.
Troester, Geo. A. Capt.
Trombley, Joseph J., Jr. Capt.
Truog, Clarence P. Major
Truszkowski, Edward G. Lt.
Tulloch, John C. Major
Turnbull, Jack V. USA
Tuttle, Wm. M. Major
Twiggs, Leo F. Lt.
Ulrich, Willis H. Major
Van Camp, Wesley USPHS
Vangrow, Stanley
Vergosen, H. E. Capt.
Vida, Alexander Capt.
Vollmer, Geo. K. Lt.
Vroon, John
Wachs, Leonard V.
Wadsworth, George H. Capt.
Walder, Harold J.
Walker, Enos G. Major
Wallman, C. H. Lt.
Wanless, Loren E. Lt.
Ward, W. Paul
Warner, Harold W. Lt. Comdr. USN
Warner, Wm. J. Lt.
Warnke, Robt. D. Capt.
Warren, John W., Jr.
Warren, Lloyd P. USPHS
Warren, Wadsworth Major
Watson, Douglas J. Lt.
Watters, F. L. Capt.
Watts, Frederick B. Capt.
Wax, John H. Capt.
Webb, Carl W.
Webster, John E. Major
Weed, Milton R. Capt.
Weeks, Don J. USN
Weimers, Eugene
Weinberg, Jacob D. USA
Weisberg, A. Allen Capt.
Weisberg, Jacob Capt.
Weisberg, Ralph J. Lt.
Weiss, Joseph G.
Wentz, Arthur E.
Wessels, Robt. R. Lt.
West, Robt. H. Lt.
Weston, Horace L. Capt.
Whalen, E. P. USA
Wheeler, Stewart C.
White, Prosper D., Jr. Capt.
Whitehead, Leston S. Capt.
Whitely, Robt. K. Lt.
Whitney, Rex. E. USAAC
Wiechowski, Henry E. Lt.
Wiener, Israel Capt.
Wietersen, Fred K. Lt.
Wilcox, L. F. Major
Wildgen, Bernard C. USN
Wilhelm, Seymour K. USA
Williams, F. R. Lt.
Williamson, Edwin M. Capt.
Williamson, Wm. P. Lt.
Willson, Wesley W. Major
Wilson, C. Stuart Major
Wilson, M. S. Comdr. USN
Wilson, Walter J., Jr. Capt.
Wiltberger, Benj. Lt.
Winfield, James M. Lt. Col.
Winsor, Carlton W. Capt.
Winton, Geo. Lt.
Wishropp, Edward A. Lt. Comdr. USN
Witter, Joseph A. Capt.
Woodward, T. E. Lt.
Worthington, Ralph USA
Wreggit, Winston R. Capt.
Wright, Robt. R.
Wunsch, Richard E. Lt.
Wyman, C. C. Lt. Col.
Wynes, Maurice C.
Wytowich, Walter S.
Yetzer, Wm. J. USA
York, Fred P. Lt. Comdr. USN
Young, Don A. Lt.
Young, Donald C. Lt. Comdr. USN
Young, Lloyd B. Lt. Comdr. USN
Yott Wm. J. Lt.
Zabinski, Edward J. USA
Zawadski, Edward S. USA
Zbudowski, Alexander S. Capt.
Zbudowski, Myron R. Capt.
Zimmerman, I. J. Capt.
Zuokowski, Sigmund Capt.

Wexford-Kalkaska-Missaukee

Albi, Rilo
Albi, William Major
Daugherty, Robert Lt.
Hoagland, F. L. Lt.
Inman, John C. Lt.
Moore, G. P. Major
Showalter, L. E. Capt.

ANNUAL SESSION OF THE COUNCIL, MSMS

January 28 and 29, 1944

Highlights of the Session

- Membership of State Society at an all time high—4786 (including 1142 Military Members).
- Annual reports of Secretary, Treasurer, Trustee, Editor, and the three Committees of The Council received.
- E.M.I.C. Program: Payment to Doctors of Medicine through Michigan Medical Service approved and referred for action to U.S. Children's Bureau.
- Psychiatric Clinic in connection with Wayne University School of Medicine discussed.
- M.S.M.S. Postgraduate Medical Education Foundation: Contribution of $100 from an anonymous member of the Society received with thanks.
- Michigan Health Council reported as a new and active force for good in Michigan health circles; M.H.C. presents a forward-looking public relations program.
- Second Annual Postgraduate Industrial Medical and Surgical Conference scheduled for April 6, Rackham Memorial, Detroit.
- Auditor's report for 1943, and Budget for 1944, approved.
- Secretary, Treasurer, and Editor elected.

FIRST MEETING

Friday, January 28, 1944—10:20 A.M.

1. *Roll Call*—The meeting was called to order by V. M. Moore, M.D., Chairman, with all members present except Dean W. Myers, M.D., Ann Arbor.

2. *Minutes.*—The minutes of the Executive Committee meeting of December 16, 1943, were read, and Item 8 was corrected, on motion of Drs. Huron-Sladek, and carried unanimously. These minutes together with the minutes of The Council meetings of September 20-23, 1943 and of the Executive Committee meetings of September 29 and November 4, were approved as published, on motion of Drs. Beck-Umphrey. Carried unanimously.

SECRETARY'S ANNUAL REPORT, 1943

3. *Secretary's Annual Report* was presented by Dr. Foster, as follows:

I herewith submit the report of the Secretary for 1943—the second World War II yearly report.

Membership

During the past year the first real impact of the war was noted in our membership. Since most available practicing physicians are now in the armed forces, little change may be expected in the number of paying members during the remaining war years.

In 1943 there was a total of 4,786 members, including sixty-five Emeritus, Honorary and Retired members and 1,142 Military members. The total paid memberships were 3,579 with net dues of $37,062.48 accruing to the Society. The number of members with unpaid dues in 1943 was thirty-seven. The membership tabulation for the years 1942 and 1943, showing net gains and losses, unpaid dues and deaths is as follows:

MEMBERSHIP RECORD 1943

	1942	1943	Military	Loss	Unpaid	Deaths
Allegan	24	19	3	5	2	....
Alpena-Alcona-Presque Isle	20	10	6	10	1	1
Barry	13	9	4	4	....	....
Bay-Arenac-Iosco	70	49	26	21	2	1
Berrien	55	52	11	3	....	....
Branch	21	13	7	8	....	....
Calhoun	99	75	39	24	....	3
Cass	14	12	3	2	....	....
Chippewa-Mackinac	21	16	8	5	....	....
Clinton	12	10	4	2	....	....
Delta-Schoolcraft	24	19	5	5	1	....
Dickinson-Iron	19	15	5	4	....	1
Eaton	29	20	7	9	....	2
Genesee	188	141	50	47	1	3
Gogebic	23	19	2	4	....	....
Grand Traverse-Leelanau Benzie	41	32	10	9	....	....
Gratiot-Isabella-Clare	40	27	12	13	....	....
Hillsdale	24	20	6	4	1	....
Houghton-Baraga-Keeweenaw	36	32	7	4	....	1
Huron	11	11	....	....	....	....
Ingham	153	127	35	26	1	1
Ionia-Montcalm	42	30	9	12	1	1
Jackson	92	75	25	17	....	2
Kalamazoo	118	73	44	45	3	1
Kent	239	191	76	48	....	3
Lapeer	15	10	3	5	....	....
Lenawee	39	29	15	10	....	1
Livingston	16	12	5	4	....	....
Luce	11	8	3	3	....	....
Macomb	39	34	7	5	1	....
Manistee	13	9	3	4	....	....
Marquette-Alger	36	30	9	6	....	....
Mason	13	10	3	3	1	....
Mecosta-Osceola-Lake	15	12	3	3	....	....
Medical Society of N. Central Counties	19	13	2	6	1	....
Menominee	13	9	3	4	....	....
Midland	16	14	2	2	....	....
Monroe	39	27	11	12	1	....
Muskegon	81	61	19	20	....	4
Newaygo	10	10	2	....	....	1
Northern Michigan	31	31	4	....	1	....
Oakland	148	111	42	37	1	1
Oceana	12	9	3	3	....	....
Ontonagon	7	5	1	2	....	1
Ottawa	32	26	5	6	1	1
Saginaw	96	71	32	25	....	....
Sanilac	15	11	2	4	....	....
Shiawassee	29	16	11	13	....	2
St. Clair	54	46	6	8	....	1
St. Joseph	22	16	10	6	....	....
Tuscola	25	23	4	2	....	....
Van Buren	25	20	8	5	1	....
Washtenaw	179	155	44	24	4	2
Wayne	1945	1634	471	311	12	10
Wexford-Missaukee	22	20	5	2	....	....
	4445	3579	1142	866	37	44
	3579					
	866					

Deaths During 1943

We regretfully record the deaths of the following forty-four members during 1943:

Alpena County—Leo F. Secrist, M.D., Alpena.

Bay County—Gaillard H. Healy, M.D., Bay City.

Calhoun County—Willoughby L. Godfrey, M.D., Battle Creek; John H. Kellogg, M.D., Battle Creek; Raymond D. Sleight, M.D., Battle Creek.

Dickinson-Iron—T. E. Camper, M.D., Corunna.

Eaton County—E. M. Paine, M.D., Grand Ledge; C. A. Stimson, M.D., Eaton Rapids.

Genesee County—Gordon H. Bahlman, M.D., Flint; Hugh W. Graham, M.D., Mt. Morris.

Gratiot-Clare—Leslie A. Howe, M.D., Breckenridge.

Houghton County—Wm. P. Scott, M.D., Houghton.

Ingham County—★Ralph Sullivan, M.D., Lansing.

Ionia-Montcalm—Frank Braley, M.D., Saranac.

Jackson County—H. A. Brown, M.D., Jackson; E. S. Peterson, M.D., Jackson.

Kalamazoo County—R. U. Adams, M.D., Kalamazoo.

Kent County—E. E. Dell, M.D., Sand Lake; D. B. Lanting, M.D., Grand Rapids; John R. Roger, M.D., Grand Rapids.

Lenawee County—A. D. Clark, M.D., Adrian.

Muskegon County—H. B. Loughery, M.D., Muskegon; R. G. Olson, M.D., Muskegon Hts; Carl Pangerl, M.D., Muskegon Hts; A. A. Spoor, M.D., Muskegon

Newaygo County—W. H. Barnum, M.D., Fremont.

Oakland County—S. W. Osgood, M.D., Clawson.

Ontonagon County—C. F. Whiteshield, M.D., Trout Creek.

Ottawa County—G. D. Bos, M.D., Holland.

St. Clair County—J. F. Waltz, M.D., Capac.

Shiawassee County—Edward J. Carney, M.D., Durand; I. W. Green, M.D., Owosso.

Washtenaw County—James R. Breakey, M.D., Ypsilanti; Norman R. Kretzschmar, M.D., Ann Arbor.

Wayne County—George C. Chene, M.D., Detroit; Guy L. Connor, M.D., Detroit; John J. Corbett, M.D., Detroit; Joseph DeHoratiis, M.D., Detroit; Raymond B. Hoobler, M.D., Detroit; Frank A. Kelly, M.D., Detroit; Anton Ottrock, M.D., Detroit; Fred W. Phillips, M.D., River Rouge; J. H. Sparks, M.D., Detroit; John T. Watkins, M.D., Detroit.

Financial Status

On December 31, 1943, the Michigan State Medical Society books were audited by Ernst & Ernst.

Their published report will reveal the following financial conditions of the Society: Assets were listed at: $62,255.24, and are $3,821.70 less than a year ago. The Net Worth is: $40,828.21 compared to $40,153.21, showing an increase of $675.00.

The income from dues was: $42,357.00 of which $5,294.52 was allocated to THE JOURNAL. This allocation produced a JOURNAL "profit" of $3,000.77. Interest was received in the amount of $978.78, and a miscellaneous income of $40.69, produced a total income of $41,082.72. This is a decerase of $7,901.64 from a year ago.

The Society expenses totaled $51,470.98. Provision for deferment of dues paid by military members made another deduction of $1,800. This left a deficit of $12,188.26 on the operation of the Society for the fiscal year.

Securities—The Security portfolio consists of high grade bonds, approximately 50 per cent of which are in U. S. Savings and Defense Bonds. The quoted market price of the securities on December 26, 1942, was $22,452.00 as compared with $22,979.50 as of December 31, 1943. Income received during the year amounted to $715.80.

Medical Defense Funds—The balance on hand December 27, 1942, was $3,548.67. Interest in the amount of $260.00 and profit from the sale of security of $106.25 and the increase value of securities of $60.00, makes a total of $3,974.92. Expenses amounted to $402.00. These consisted entirely of legal fees leaving a trust balance on December 31, 1943, of $3,572.92. This represents an increase of $24.25.

Journal—THE JOURNAL had allocated to it $5,294.52 from members' dues. Other incomes were from subscriptions, advanced reprint sales, advertising sales and JOURNAL cuts, making a total income of $20,880.15. The expenses included the Editor's salary and expense amounting to $2,100.00, printing and mailing of THE JOURNAL $11,464.48, and these with other relatively small expenses made a total of $17,879.38. This was $3,000.77 over the budget estimate. Without the allocation to THE JOURNAL from members' dues there would have resulted a loss of $2,293.75 in the operation of THE JOURNAL for the year.

Summary—The financial statement of the Michigan State Medical Society for 1943 reflects vividly the great impact of the war on our organization. With 1,137 members in the Army and Navy, the remission of dues represents a loss in income from this one source of $13,644.00 per annum.

The 1943 Annual Session

The 1943 Annual Meeting was held at the Statler Hotel, Detroit, in September, with 1,142 members serving with the forces, and many overseas, a smaller than average registration was anticipated. The total registration, however, was 2,002, a remarkable wartime attendance, which taxed to the limit the hotel facilities.

The General Assembly programs with discussion Conference, were continued in the 1943 Session and met with the same popular approval of the past three years.

The limited exhibit facilities in Detroit precluded the development of a Scientific Exhibit.

The policy of bringing to the Scientific Assembly out-of-state essayists of national and international reputation, was continued. Despite the unusual expense incurred in maintaining the high standard of the Michigan meeting with twenty-two visiting out-of-state speakers, a substantial profit accrued to the Society as a result of the well-developed technical exhibit. The number of available technical exhibit booths, however, was considerably smaller in 1943. This was due to the more limited facilities in Detroit.

Anticipated transportation difficulties failed to in any way disrupt the plans of either the Scientific program or technical exhibit.

The registrants at the convention displayed their keen appreciation to the exhibitors and gave them very generous attention.

County Society Secretaries' Conference

One conference of secretaries of the component county medical societies was held in Lansing on January 24, 1943. Due to wartime restrictions, no conference was scheduled on the occasion of the Annual Meeting in Detroit, as had been the custom in previous years.

The program of the January Conference was devoted to subjects of a war character: meeting military, research, industrial, and civilian needs, temporary licenses and dislocating of physicians, poison gas warfare, and related subjects. The meeting was attended by 82 persons, including 32 county society secretaries.

Committees

Time and space do not permit a detailed account of committee activities which was maintained at prewar level.

1943 was a legislative year during which the Legislative Committee had to consider over 50 bills affecting the medical profession. All bills detrimental to medicine and public health failed to pass, and a number of good health measures were placed on the statute books. These results give evidence of the splendid work of the committee.

The Procurement and Assignment Committee, having processed most of the physicians available for military duty, were busily engaged in a program of relocation of physicians in critical areas throughout the State.

The Committee on Postgraduate Medical Education continued its program in the extra-mural centers, including the five Upper Peninsula centers established in 1941, on an annual four-day schedule instead of an eight-day one. The shortage of physicians, especially in the smaller communities, necessitated this shorter, more concentrated program.

★Died in Military Service.

A perusal of the minutes of all of the committees of the Society during 1943, would elicit an appreciation of the tremendous contribution of time and effort made by the many members of the State Society to the development of its many splendid projects.

Society Activities

Due to the shortage of medical manpower in most communities, some county societies have found it necessary to hold fewer meetings and some have replaced regular meetings, in the spring and autumn, with extra-mural postgraduate conferences.

Contact with fifty-five county units has been maintained throughout the year by the regular Councilor and Officer visitations, and by the issuance of fifteen secretary letters. Of these eight were sent to County Presidents and Secretaries, and seven went to every member of the Society.

The members of the State Society now enter upon another year of activity which promises to present more and bigger problems. Physicians on the home front have a responsibility to carry on the practice of medicine with greatly depleted ranks, and to maintain for themselves and their colleagues in the armed forces the traditions of American Medicine. This latter responsibility in the light of political trends calls for individual participation of every physician in some well-developed and coördinated plan of public education. Some such plan is necessary if we, as a profession, properly contribute to the solution of the inevitable postwar economic and social problems of medicine. We record with pride the honor roll of nearly 2,000 Michigan doctors of medicine serving with the armed forces—a splendid record.

In conclusion I respectfully recommend that

1. In view of existing transportation difficulties, inter-society relations be maintained, in so far as possible, through communications and officer-committee-councilor contact with the various component societies.

2. The study and development of Postgraduate Refresher Courses for members returning from the armed forces, be continued and made ready for operation when needed.

3. The Society immediately embark upon a suitable program of public information, either through the development of a new Department of Public Relations and Medical Service with a full-time director within the State Society, or in participation with other professional groups in a similar program on a broader basis.

4. If a new Department of Public Information be established independently by the State Society, that the name of the present "Public Relations Committee" be changed to more appropriately designate its intra-society function as set forth in the Constitution of the State Society.

Your Secretary desires to express to this Council, his sincere appreciation of its splendid coöperation during 1943; and to the committees of the Society, a hearty commendation of their sincere efforts in the successful execution of many splendid projects.

Mr. Burns and an almost completely new office personnel have been most untiring in the discharge of their many duties.

To Mr. Burns, especially for his kind coöperation, helpful suggestions and constant inspiration, and to all those who have aided so generously in the discharge of the duties of this office, your Secretary is most grateful.

Respectfully submitted,

L. FERNALD FOSTER, M.D.
Secretary

The report was referred to the County Societies Committee.

EDITOR'S ANNUAL REPORT, 1943

4. The *Editor's Annual Report* was presented by Dr. Haughey, as follows:

In 1943, THE JOURNAL of the Michigan State Medical Society published 1,022 pages, not including four pages of cover each month. Notwithstanding shortages of labor and paper the standard of appearance and workmanship has been maintained, and the date of publication has not been too late. Some numbers have been unavoidably delayed, and for this we ask your indulgence. Abnormal times and conditions have been mostly to blame.

Seventy-seven original papers of unusually worthy material and value were published, with a good interspersing of illustrations. Several of our papers have been abstracted in other journals or reviews, two copied in full and one translated into Spanish.

We have prepared and published sixty editorials, which were submitted routinely to the Publication Committee, and the Editor wishes hereby to acknowledge gratitude to this Committee, especially Dr. Perkins and Mr. Burns, for many helpful criticisms and suggestions. We have tried to interpret the belief of our Society and our membership in regard to the trying times through which we are passing, and to suggest logical procedures in guiding our actions and reactions.

There have been ninety-two book reviews in which we attempted, in few words, to give a just appreciation and criticism of the books submitted. A number of friends have kindly helped in this service and we are appreciative of these labors. A proper book review takes considerable time and studied contemplation, as well as precise comments.

We have published thirty-six War Bulletins trying to give a true picture of medicine in our war effort, and the problems to be solved as well as the suggested solution as arrived at by many of our contemporaries. You and Your Business has been a handy title to cover forty-nine articles of miscellaneous nature, but intimately connected with economics, social and other problems of especial interest to the medical profession.

We have published for The Michigan Department of Health fifty-eight notes and comments having to do with public health and our contacts with those problems.

Thirty-seven deaths have been catalogued, including two former presidents of the Michigan State Medial Society and many men of unusual prominence.

We are proud of our JOURNAL, and believe it is now as always filling a distinct service to the profession, and is worthy of its cost even if it does not always carry all of its own financial load.

Respectfully submitted,

WILFRID HAUGHEY, M.D., *Editor*

The report was referred to the Publication Committee.

ANNUAL REPORT OF COUNTY SOCIETIES COMMITTEE, 1943

5. *Report of County Societies Committee* was presented and discussed by Dr. Sladek, Chairman, as follows:

1. The County Societies Committee of the Council met in Detroit on Thursday, January 27, 1944. The meeting was called to order at 8:45 p.m. by Chairman Sladek. Present were Drs. Sladek, Riley, Hubbell, and Perkins.

2. The Brasie Resolution re Osteopaths in Michigan

Medical Service was discussed. It was the sense of the Committee that the report of the Special Committee should be presented to The Council as a whole.

3. Situation in Sault Ste. Marie.—A. H. Miller, M.D., Councilor, 12th District, discussed in full detail the situation in Chippewa-Mackinac County. Motion of Drs. Hubbell-Riley that the appeal be referred to the Ethics Committee which should be instructed to make a later report to The Council. Carried unanimously.

4. Postwar Postgraduate Program. Letter from Oregon State Medical Society was read. Motion of Drs. Riley-Perkins that the matter be turned over to the Postgraduate Medical Education Committee. Instructions to Executive Secretary Burns to answer the questionnaire giving the present setup and to tell Oregon that at present we have no fixed plans but this is being turned over to the Postgraduate Medical Education Committee. Carried unanimously.

5. Relocation of physicians. Letter from Deputy Commissioner of Health Thiehoff and letter to the late H. Allen Moyer, M.D., from T. A. Parran, USPHS, were read. Motion of Drs. Perkins-Riley that the letter be approved, carried unanimously. The Federal Legislation Bulletin 29, page 17, contains provisions that should take care of postwar postgraduate situations. Carried unanimously. It is the sense of the committee that we should approve of Federal aid in the relocation of physicians into critical areas.

6. Proposed consolidation of administrative boards. Letter from Roy C. Perkins, M. D., was read. Motion of Drs. Riley-Hubbell that the letter be received and placed on file. Carried unanimously.

7. Report re discontinuance by M.T.A. of diagnostic X-ray services. This was fully discussed but no action taken, inasmuch as the services have not been discontinued.

8. Suggestion that the M.C.C.C. be placed under the State Department of Health. No definite information and no action.

9. Medicolegal cases outstanding. Motion of Drs. Hubbell-Perkins, that the report be received and filed. Carried unanimously.

10. Red Cross Aid to health departments during flu epidemics. Discussed and tabled.

11. Letter from Mary S. Kitchel, M.D., Grand Haven. Motion of Dr. Riley that the situation be taken care of by Councilor V. M. Moore in coöperation with L. A. Potter of the State Department of Health. Carried unanimously.

Respectfully submitted,

E. F. Sladek, M.D., *Chairman*
Wilfrid Haughey, M.D.
R. J. Hubbell, M.D.
R. C. Perkins, M.D.
P. A. Riley, M.D.

The report was referred to the Finance Committee.

ANNUAL REPORT OF PUBLICATION COMMITTEE, 1943

6. *Report of the Publication Commitee* was presented by Dr. Morrish, Chairman, as follows:

1. The Publication Committee of the Council met in Detroit on Thursday, January 27, 1944. The meeting was called to order at 8:15 p.m. by Chairman Morrish. Present were Drs. Morrish, Miller, Beck, Witwer, Editor Haughey, and Mr. Burns.

2. Interview with Harry R. Lipson, prospective salesman of advertising space in M.S.M.S. Journal. Mr. Lipson discussed prospects for obtaining new business, assignment of prospects, rates of commission, on new business and on renewals of same, and formulation of a contract to cover his services in behalf of the M.S.M.S. Journal. Motion of Drs. Witwer-Beck that this Committee recommend that a written contract be entered into with Mr. Lipson whereby he will obtain new advertising accounts for the M.S.M.S. Journal for a commission on said new business he obtains and on renewals of same, and that this is in no way to affect present arrangements with the Coöperative Medical Advertising Bureau; and that when an agency commission is allowed, Mr. Lipson is to receive a commission on the net balance. Carried unanimously.

Prospect list for Mr. Lipson. A list of prospects to be contacted by Mr. Lipson was approved. The advertisements of the above concerns are each to be accepted subject to the approval of the Publication Committee.

Motion of Drs. Beck-Witwer that Editor Haughey and Secretary Foster be instructed to contact the C.M.A.B. concerning prospective advertising accounts which have lain dormant for years, with a view to having these turned over to Mr. Lipson for action. Carried unanimously.

3. Auditor's report re The Journal. The report of Ernst & Ernst was studied by the committee, which also studied the reprint report for the year 1943. Motion of Drs. Beck-Witwer that these reports be accepted, was carried unanimously.

4. Proposed budget of The Journal for 1944. The Budget was studied, approved, and referred to the Finance Committee, on motion of Drs. Beck-Witwer. Carried unanimously.

5. Paper reductions. The matter of limiting monthly features and otherwise insuring a journal of not more than 84 pages per month, to conserve paper, was discussed. The Committee left this to the discretion of the Editor to hold The Journal down to 84 pages per month.

The Managing Editor of The Journal was instructed to eliminate complimentary copies to as many detail men and others as possible for the duration, to save paper.

6. Request for advertising space.

(a) Harrower Laboratories, Inc. (institutional copy re endocrine products) 12 quarter pages. After detailed study, motion was made by Drs. Miller-Witwer that these advertisements be accepted. Carried unanimously.

(b) The Wander Company (Ovaltine) 6 pages. Motion of Drs. Witwer-Beck that these advertisements be accepted. Carried unanimously.

(c) Schering Corporation (Estinyl). This advertisement was accepted by the Committee members present.

(d) Otis E. Glidden Company (Zymenol) 12 pages. Motion of Drs. Witwer-Beck that this advertising be accepted. Carried unanimously.

(e) I. W. Harper, 6 pages. Motion of Drs. Miller-Witwer that these pages be accepted. Carried unanimously.

Motion of Drs. Beck-Miller that on a mail ballot, the affirmative votes of four of the five members of the Publication Committee shall be necessary for approval of an advertisement for the M.S.M.S. Journal. Carried unanimously.

7. Refund of $1,623.65 for 1943 from the C.M.A.B. was reported. Motion of Drs. Beck-Witwer that the Chairman be authorized to send a letter of congratulation and appreciation to C.M.A.B.. Carried unanimously.

8. Request for complimentary copies of M.S.M.S. Journal:

(a) Dr. Martha M. Eliot, U. S. Children's Bureau. This was discussed and the motion of Drs. Miller-Beck that Dr. Eliot be advised of the subscription rate of the M.S.M.S. Journal, was carried unanimously.

(b) American Hospital Association. This was approved on an exchange basis, the Hospital Journal to be sent to Editor Haughey, motion of Drs. Beck-Miller. Carried unanimously.

(c) Medical School, Southwestern Medical Foundation, and University of Illinois Medical School, and "R.N.": Motion of Drs. Beck-Witwer that due to the paper shortage, these requests for free subscriptions be not granted. Carried unanimously.

9. Communication from L. A. Campbell, M. D., of Saginaw, opposing advertising of rental of radium was thoroughly discussed. The Executive Secretary was instructed to write the A.M.A. concerning its policy and the reasons for adopting same. Motion of Drs. Witwer-Beck that this question be referred to the Executive Committee, after the report of the A.M.A. shall have been received, with the respectful recommendation of the Publication Committee that if the J.A.M.A. does not accept this advertising, the J.M.S. M.S. do not accept it. Carried unanimously.

10. Prospective advertisers: the Committee selected a number of prospective advertisers whose messages have appeared in other medical publications, and authorized contact with these firms.

Respectfully submitted,

R. S. MORRISH, M.D., *Chairman*
O. O. BECK, M.D.
A. H. MILLER, M.D.
E. R. WITWER, M.D.

The report was referred to the County Societies Committee.

ANNUAL REPORT OF FINANCE COMMITTEE, 1943

7. *Report of Finance Committee* was presented and discussed by Dr. Umphrey, Chairman, as follows:

1. The Finance Committee of the Council met in Detroit on Thursday, January 27, 1944. The meeting was called to order by Chairman C. E. Umphrey, M.D., at 8:15 p.m., the following being present: Drs. Umphrey, Huron, Barstow, DeGurse, Moore, Stryker, Brunk, Keyport, Ledwidge, and Secretary Foster.

2. On motion of Drs. Huron-Barstow, the reports of Ernst & Ernst were received and ordered filed. Carried unanimously.

3. On motion of Drs. Stryker-Huron, several items totalling $116.58 were ordered stricken off the books as doubtful Accounts Receivable. Carried unanimously.

4. On motion of Drs. DeGurse-Barstow the bills payable were allowed and ordered paid. Carried unanimously.

5. On motion of Drs. Barstow-Stryker, the expenses of the keyman to the January 30 Information Conference were ordered paid, according to the precedent established in former years. Carried unanimously.

6. On motion of Drs. DeGurse-Stryker, the luncheon expense of all guests was ordered paid. Carried unanimously.

7. The Luce-Christian Resolution, presented to the 1943 M.S.M.S. House of Delegates and aimed at better public relations for the medical profession, was discussed thoroughly. Motion of Drs. Huron-Stryker that it is the sense of the Finance Committee that the recommendations of the Luce-Christian Resolution including the establishment of a Washington office are being satisfactorily implemented through coöperation of the M.S.M.S. with The Michigan Health Council. Carried unanimously.

8. Request for exemptions of Federal taxes on M.S.M.S. Foundation for Postgraduate Medical Education. Motion of Drs. Huron-Barstow that no request be made at this time. Carried unanimously.

9. Budget:

(a) On motion of Drs. Huron-Stryker, the $10 assessment was made a special budgetary item for public relations and education. Carried unanimously.

(b) It was the sense of the Finance Committee that there was no provision for the elimination of the assessment of any active member on the basis of income.
It was also the sense of the Committee that the assessment should not apply to Emeritus Members, although voluntary contributions from such members to this fund would be acceptable.
Letter from Wayne County Medical Society asking on what basis the fund created by the special assessment will be spent. Dr. Umphrey reported that he had presented a statement relative to this matter to The Council of the Wayne County Medical Society. No further action was deemed necessary.

(c) On motion of Drs. DeGurse-Huron, the usual expense accounts of the Secretaries were ordered continued. Carried unanimously.

(d) On motion of Drs. Stryker-Barstow, an increase of $10 per month was accorded each of the following office personnel: Miss W. C. Shepline, Miss Helen Schulte, Miss Eileen Ayers, Miss Geraldine Chapman. Carried unanimously.

(e) On motion of Drs. Stryker-DeGurse, the Finance Committee approved the Budget and respectfully submitted it to The Council.

Respectfully submitted,

C. E. UMPHREY, M.D., *Chairman*
W. E. BARSTOW, M.D.
T. E. DEGURSE, M.D.
W. H. HURON, M.D.
O. D. STRYKER, M.D.

The report, excluding Bills Payable, was referred to the Publication Committee.

Bills Payable.—Motion of Drs. Ledwidge-Perkins that the report of the Finance Committee recommending approval and payment of Bills Payable be adopted. Carried unanimously.

FEDERAL MATERNAL-INFANT CARE PROGRAM

8. *Federal Program of Obstetric-Pediatric Care for Servicemen's Wives* (Special Committee: Drs. Ledwidge-Keyport-Foster).—Chairman Ledwidge reported for his Special Committee, outlining contacts and work with Dr. E. F. Daily, Michigan Medical Service, Auditor General Brown, and with the Executive Committee of The Council. He reported that the Board of Directors of Michigan Medical Service, on January 26, had tabled the proposition of coöperation until a decision is reached by the U. S. Children's Bureau concerning payment to doctors through M.M.S.

At the last meeting of The Council of the State Society, September 23, in Detroit, this subject was discussed with Edwin F. Daily, M.D., of the Federal Children's Bureau. Following this discussion, Dr. Daily requested an outline of the plan as proposed, September 28, at a joint meeting of the Executive and Medical Advisory Committee of Michigan Medical Service. They discussed both the plan and Dr. Daily's request. The attendance at this meeting, and the notes on this subject taken from the official minutes of the meeting are as follows:

"Present: Robert Baker, M.D.; A. S. Brunk, M.D.; E. I. Carr, M.D.; W. B. Harm, M.D.; Stanley W. Insley, M.D.; R. L. Novy, M.D.; also P. L. Ledwidge, M.D., speaker of the House of Delegates of the Michigan State Medical Society; Jay C. Ketchum; and C. H. Coghlan. Absent: Wilfrid Haughey, M.D., and Wm. J. Norton.

"Obstetrical and Pediatric Care for Servicemen's Families.

"Dr. Ledwidge informed the committee that tentative proposals had been discussed regarding some possibility of utilizing Michigan Medical Service as a means of presenting an alternative to the U. S. Children's Bureau and the Michigan Department of Health's program for servicemen's wives.

"After general discussion of all phases of such a proposal, motion was made, supported, and carried: That the sense of discussions of this meeting and a tentative proposal be conveyed to Dr. Ledwidge for consideration of The Council of the Michigan State Medical Society, and that this group reconvene at the call of the President to further consider or carry out the requests of The Council."

A questionnaire was then sent to each active member of the MSMS, asking the following:

1. Are you in favor of accepting federal funds for the care of wives and infants of enlisted men?
2. If so, which agency do you prefer to dispense the funds?
   (a) Michigan Department of Health.
   (b) Michigan Medical Service.
3. Do you do obstetrics?
4. Do you do pediatrics?

A report of this questionnaire, and general discussion of the problems, as taken from the minutes of the Executive Committee of the Council at its November 4 meeting are as follows:

"Program of Obstetric-pediatric care for servicemen's wives. The Special Committee (Drs. Ledwidge, Keyport, Foster) reported through Chairman Ledwidge, who stated that the returns on the recent poll, up to November 4, 1943, were as follows:

	Yes	No	No answer
Question 1.	802	746	267
Dept. of H.M.M.S.			
Question 2.	132	814	840
Question 3.	1053	673	76
Question 4.	969	576	113
Total number of returns			1,827

Dr. Ledwidge also presented a detailed plan developed by executives of Michigan Medical Service for possible presentation of the U. S. Children's Bureau. Dr. Ledwidge reminded the Executive Committee of the Council that Edwin F. Daily, M.D. of the U. S. Children's Bureau had stated that if Michigan Medical Service were utilized for this project, it would merely be a disbursing agency, with the finances being given to it by the State Department of Health; Dr. Ledwidge stated he was not enthusiastic over such use of Michigan Medical Service. He asked: "What stand shall the State Society take on any coöperation?"

"The matter was discussed by Drs. Haughey, Beck, Brunk, et al. The Oakes Resolution, as presented to the 1943 Michigan State Medical Society House of Delegates, was read; the action taken by the House of Delegates was also reviewed.

"Motion of Drs. Umphrey, Ledwidge that the Special Committee be instructed by the Executive Committee of the Council to carry out the dictates of the Michigan State Medical Society House of Delegates; that the Michigan State Medical Society is opposed to direct payment of physicians by government, and that the Special Committee be instructed to continue to negotiate with the State Department of Health for the disbursement of these monies through Michigan Medical Service; that pending further negotiations, members of the Michigan State Medical Society may properly,

(a) Sign the blanks to provide for *Hospital* Service, giving the care gratis; or

(b) Sign the blanks and accept the government fee for *medical* care; or

(c) Decline to participate in the program *as they see fit.*

This motion was thoroughly discussed.

"Substitute motion was offered by Drs. Umphrey-Brunk that the above ideas be given to the Special Committee and that they be empowered to write and edit these ideas in the form of a letter, and that they be authorized to negotiate further with the Michigan State Department of Health; carried unanimously."

Dr. Vernor Moore, Dr. Alexander Campbell, and Dr. Lillian Smith worked out a plan, reported November 15. This plan was presented to the Executive Committee of Michigan Medical Service by Dr. Brunk on November 17, and was discussed and approved informally.

It was then presented to the Board of Directors of M.M.S. at their December 8, 1943 meeting. Extracts from that meeting are as follows:

"Present: Leon Bogart, M.D.; A. S. Brunk, M.D.; E. I. Carr, M.D.; E. F. Collins, M.D.; B. R. Corbus, M.D.; E. H. Fletcher; Robert Greve; W. B. Harm, M.D.; Wilfrid Haughey, M.D.; Stanley W. Insley, M.D.; P. L. Ledwidge, M.W.; V. M. Moore, M.D.; Wm. J. Norton, R. L. Novy, M.D.; Philip Riley, M.D.; also Jay C. Ketchum; Frank M. Cordero; C. H. Coghlan; and Henry S. Hosmer. Absent: Robert Baker, M.D.; Wm. J. Burns; H. H. Cummings, M.D.; Ralph Hueston; Wm. A. Hyland, M.D.; Claude R. Keyport, M.D.; John Reid; Dora H. Stockman; O. D. Stryker, M.D.

Maternity and Pediatric Program.

Dr. Ledwidge reported on the maternity and pediatric program of the Children's Bureau.

While the minutes in this regard are very meager, the matter was thoroughly discussed and given wholehearted approval by members of the board. There was not a quorum present at this meeting.

The plan was then presented to Auditor-General V. J. Brown at a meeting on December 29. Present at this meeting were Auditor-General Brown, Mr. Jay Ketchum, and Drs. Brunk, Novy, Umphrey, and Ledwidge. The report of this committee is set forth in a letter from Mr. Ketchum under date of January 4. This letter was approved by Drs. Keyport, Foster, Ledwidge, and Chairman of the Council Moore. This action was reported to Dr. Smith of Michigan State Department of Health, as per letter of January 11. It was approved by Dr. Smith, and the new proposal sent on to Washington.

At a meeting of the Board of Trustees of Michigan Medical Service on January 26, a letter from Dr. Moore, making formal request for Michigan Medical Service to put the plan into effect, was read. A motion that the Board of Trustees stand ready to do this was tabled until the report from the Federal Children's Bureau has been received.

Respectfully submitted,

P. L. Ledwidge, M.D., *Chairman*
C. R. Keyport, M.D.
J. Leonard Foster, M.D.

The report was referred to the Finance Committee.

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9. *Burns Case.*—The special committee (Drs. Brunk-Hyland-Ledwidge-Umphrey) reported through Chairman Brunk on the legal talent selected and the progress of the case. Dr. Brunk stated that Attorney Chawke had been invited to Saturday's meeting of The Council to present the legal aspects. The Chairman recom-

mended that a dignified statement for release to the newspapers should be developed. Further, Dr. Brunk referred to newspaper stories on this matter in which Mr. Burns invariably is described as the Executive Secretary of the Michigan State Medical Society but Mr. Hooper seldom is mentioned as Executive Secretary of the Michigan Association of Osteopaths.

Motion of Drs. Huron-Haughey that the report of the committee and its recommendations, be approved. Carried unanimously.

Motion of Drs. Haughey-Witwer that the special committee of which Dr. Brunk is Chairman be authorized and instructed to prepare the statement and to contact the newspapers and wire services as recommended by Dr. Brunk. Carried unanimously.

M.S.M.S. COMMITTEE REPORTS

10. *Reports of M.S.M.S. Committees*:

(a) *Postgraduate Medical Education Committee,* meeting of November 23, 1943. The minutes were read and discussed. Motion of Dr. Umphrey, seconded by several, that the minutes be received and placed on file, was carried unanimously.

(b) *Postgraduate Extension Committee,* meeting of November 23, 1943. The minutes included a report on a $100 contribution to the M.S.M.S. Postgraduate Foundation by an anonymous donor. Motion of Dr. Umphrey—seconded by several—that the minutes and the $100 check be received, and that an official letter of thanks be dispatched to the generous donor. Carried unanimously.

(c) *Joint M.S.M.S.-State Bar Committee on Venereal Disease Control,* meeting of December 19, 1943. These minutes were read and on motion of Drs. DeGurse-Hubbell were approved except Item 6 describing a Michigan law controlling the sale of sulfonamides, which statute does not exist. Carried unanimously.

(Recess for Luncheon at 12:30 p.m.)

SECOND MEETING

Friday, January 28, 1:55 P.M.

10. *Report of M.S.M.S. Committee* (Continued)

(d) *M.S.M.S. Venereal Disease Control Committee* meeting of December 19, 1943. These minutes were read and Item 5 concerning the Prophylactic Kit was discussed by L. W. Shaffer, M.D., Chairman of the Committee, who answered questions propounded by the Reference Committee of the M.S.M.S. House of Delegates at its September, 1943, meeting. Dr. Shaffer felt that the present program, as proposed, offers much of value, representing 18 months' work, and should be acted upon; he stated that the kit is better than anything on the market. General discussion followed. Motion of Drs. Hubbell-Barstow that The Council accept the Committee report and give authority to the Venereal Disease Control Committee to use the following statement on the Prophylactic Kit: "This preparation has been prepared after the formula developed by the Venereal Disease Control Committee of the Michigan State Medical Society." Carried unanimously. The Chair thanked Dr. Shaffer for his attendance at this meeting and complimented the members of the Venereal Disease Control Committee for their excellent work.

(e) *Mental Hygiene Committee,* meeting of January 20, 1944. These minutes were read by Secretary Foster, who presented the Committee's request for one psychiatrist on the General Assembly program at the September, 1944 M.S.M.S. Postgraduate Conference on War Medicine. Motion of Drs. Huron-Barstow that the Committee report and recommendation be accepted. Carried unanimously. Motion of Drs. Barstow-Hubbell that the Mental Hygiene Committee be instructed to proceed with its proposed project of premarital instruction. Carried unanimously.

(f) *Child Welfare Committee,* meeting of January 20, 1944. The minutes were read and accepted on motion of Drs. Witwer-Beck. Carried unanimously.

(g) *Joint Committee of M.S.M.S.-UAW-CIO* meeting of November 16, 1943. Item 14, line 24, of these minutes read as follows: "We recommend that a *permanent* committee be provided . . ." Discussion brought out that this committee was created originally as a *temporary* committee. Motion of Drs. Barstow-Ledwidge that the Council rescind the action of its Executive Committee taken on December 16, 1943, Item 12—(b), relative to the report of the M.S.M.S.-UAW-CIO Committee so far as the word "permanent" is concerned. Carried unanimously.
Motion of Drs. Witwer-Perkins that the M.S.M.S.-UAW-CIO Committee be continued as a temporary committee. Carried unanimously.

(h) *Michigan Health Council.*—Dr. Brunk, one of the representatives of the M.S.M.S. to the Health Council, reported that the Council has held 4 meetings, has considered a mailing to other state medical societies, and has recommended a $20,000 budget, $5,000 to be contributed by the Michigan State Medical Society, $5,000 by Michigan Medical Service, and $10,000 jointly by the Michigan Hospital Association and Michigan Hospital Service. He stated that Michigan Medical Service voted to contribute to the Council when it has learned its aims and purposes; further that Michigan Hospital Service is postponing its contribution in order to ascertain how much of the $10,000 can be assumed by the Michigan Hospital Association. MHS will loan its publicist, Mr. Davis, to the Council, at no cost. Dr. Brunk stated that the State Dental Society is delaying its coöperation with M.H.C. until it ascertains what the A.D.A. thinks of the project. The matter was thoroughly discussed by Drs. Umphrey-Foster-Brunk-Huron, in which the speakers stressed that the medical profession must develop and offer a better voluntary program of medical service than can be inaugurated by government. The Chair referred the matter to the Special Committee (Drs. Keyport-Witwer-Brunk-Barstow), as a reference committee.

(i) *M.S.M.S. Radio Committee.*—A letter from Chairman R. N. DeJong outlining a possible use of stations WJR, and WKAR, through the coöperation of the U. of M. Broadcasting Service, was presented. Motion of Drs. Huron-Sladek that the proposed arrangements be approved. Carried unanimously.

(To be concluded in April issue)

ANNUAL MICHIGAN POSTGRADUATE PROGRAM FOR GRADUATES IN MEDICINE

The Michigan State Medical Society, in coöperation with the University of Michigan Medical School, Wayne University College of Medicine, the Michigan Department of Health, and the Wayne County Medical Society, announces the postgraduate courses for 1944.

INTRAMURAL COURSES

All Dates Inclusive

Anatomy (Thursdays)	March 9-June 29
Care and Treatment of Children, Recent Advances in	May 15, 16 and 17
Common Problems in Differential Diagnosis	May 15, 16 and 17
Diseases of the Blood and Blood-forming Organs	May 1-5
Diseases of the Heart	May 25, 26 and 27
Electrocardiographic Diagnosis	Nov. 6-11
Gastroenterology	May 22, 23 and 24
Laboratory Diagnosis, Clinical	April 24-28
Ophthalmology and Otolaryngology	April 20-26
Personal Courses	Throughout the year
Roentgenology	April 17-21
Therapeutics, Recent Advances	May 18, 19 and 20
Summer Session Courses	July 3-August 25

EXTRAMURAL COURSES

Ann Arbor	April 11, May 9
Bay City	March 8, April 12
Flint	April 11 and 25
Grand Rapids	April 11, May 9
Jackson	April 4 and 26
Kalamazoo	April 27, May 16
Mt. Clemens	April 12 and 26
Traverse City	April 12, May 10

Subjects

Common Endocrinological Problems.

Deviation from the Normal in Developing Children. Practical Points in Everyday Pediatrics.

Treatment of Varicose Veins.

The Problem of Abortion. Classification. Rh Factor.

Relation of Physical Findings in the Chest to the Roentgen Findings. Panel Discussion.

Recent Developments in Gastroenterology. Panel Discussion.

UPPER PENINSULA

Monday, May 22—Sault Ste. Marie, Ojibway Hotel.

Tuesday, May 23—Marquette, Northern Michigan Children's Clinic.

Wednesday, May 24—Houghton, Douglass House.

Thursday, May 25—Ironwood, St. James Hotel.

Friday, May 26—Powers, Pinecrest Sanatorium.

Program

2:30 P.M.

The interpretation of clinical laboratory procedures useful in practice—FRANK H. BETHELL, M.D.

The modern management of varicose veins, phlebothrombosis, and thrombophlebitis—ROBERT W. BUXTON, M.D.

Management of venereal diseases—ROBERT S. BREAKEY, M.D.

Deviation from the normal in developing children. Practical points in everyday pediatrics—MARK OSTERLIN, M.D.

6:15 P.M. Dinner.

Panel Discussions.

1. Management of blood diseases. Indications for transfusion.
2. Application of developments in nutrition to general practice.

For further information, address **Committee on Postgraduate Education, Michigan State Medical Society, Room 2040, University Hospital, Ann Arbor, Michigan**

✶ YOU AND YOUR BUSINESS ✶

CANCER EDUCATION IN HIGH SCHOOLS

The Michigan Department of Health has recently placed in each of the 731 high schools of the state a teaching manual on cancer control. This manual was prepared in the Division of Cancer Control and grew out of experience gained in speaking to many high school students on this subject.

Interest shown by students after hearing a talk on cancer control and questions asked of biology and other science teachers indicated the need for some authoritative reference manual on the subject. It is expected that this manual after being used for a while in its present mimeographed form will be issued in a more permanent form.

Michigan is one of several states offering a cancer educational program to the schools. This is in line with the development of a general educational program. The Cancer Manual for physicians and dentists prepared and distributed by the Cancer Committee of the Michigan State Medical Society and the Michigan Department of Health will fill a long-felt need in this field. The two bulletins, "Cancer—Causes and Control," and "Cancer in Michigan," for general public use have been widely distributed. The high school manual will also serve a large and very important section of the general population.

The coöperative cancer program sponsored by the medical society and health department is unique in this country and is stimulating an increased interest in the cancer control program throughout the state.

ADMINISTRATIVE AND PROFESSIONAL PROBLEMS OF MEDICAL PRACTICE IN THE HOSPITAL.

Father Alphonse M. Schwitalla, S.J., Dean of the St. Louis University School of Medicine in an address at the Annual Meeting of the Wisconsin State Medical Society in Milwaukee, September, 1943, arrived at the following conclusions. They are particularly interesting, especially the first four:

For me, personally, I feel that I can unqualifiedly state my position briefly as follows:

1. The principle of the exclusive autonomy of the physician in rendering medical service to a patient must remain inviolable.

2. The ethical relationships defined in the principles of ethics of the American Medical Association with reference to consultations are sound and are conceived in the best and in the most lasting interests of the patient.

3. The application of these two fundamental principles to the practice of medicine by the physicians who give a general service is beset with numerous difficulties which should, however, with sufficient good will, competence, and sincerity, be resolvable in a manner conducive to the good of the patient and in conformity with elevated ideals in medical practice.

4. Plans should be studied which will make it possible for the hospitals to work towards the elimination of the salary basis of appointment of the pathologist, the radiologist, the laboratory physician, the physiotherapist and the physician anesthetist, so that these physicians may be in reality and not merely in name free professional and independently responsible agents and not agents of the institution in which they are carrying on their work.

5. A basis or a number of bases should be devised according to which a fair return on its investment and on its operating expenditures in the conduct of the various medical general service departments should be returned to the institution.

6. If these principles are reduced to a practical program, the controversies with reference to these questions which have centered in the Blue Cross Plans can and will be successfully adjusted provided that the Blue Cross Plans adhere firmly to the principle which they have adopted of guarenteeing to the participating hospitals continuing freedom in the formation and execution of their administrative policies.

SOCIAL SECURITY

WASHINGTON—(AP) Jan. 17, 1944—The social security board recommended for the first time today federal insurance to cover doctor and hospital bills.

In its eighth annual report to congress, the board said such insurance should allow a person to choose his own doctor or hospital, and preserve personal relationships between physicians and their patients.

It also should maintain professional leadership, the board said, guarantee the continued independence of non-governmental hospitals, and insure to doctors and hospitals an adequate financial return—"very probably more nearly adequate than that in customary circumstances."

The proposal was made as a part of a "comprehensive unified system" of social security which the board, headed by Arthur J. Altmeyer, believes ought to be adopted to get ready for the "sharp and sudden" social changes and readjustments which it says are around the corner.

"Whether one believes the war will end in one year or five," the report says, "the time in which to build a stronger system of social security is short."

The program outlined today includes the following provisions which the board has advocated before:

Extension of the present social security system to about 20,000,000 more persons, such as farmers, domestics and the self-employed; insurance against temporary or permanent disability, a national unemployment insurance system to replace the 51 systems of the states and territories, and protection of the social security rights of members of the armed forces.

If these provisions were added to the present old-age and survivors' insurance, the program for the first 10 years would cost 12 per cent of earnings, divided between employers and workers, the board estimated. After 10 years, as larger amounts are paid out to aged

persons and survivors, the cost would go above 12 per cent, and the board recommended that the excess be met by a federal contribution.

The board expressed belief that "the lack of adequate measures to cope with sickness and disability represents the most serious gap in provisions for social security in the United States."

COMEDY A LA MURRAY-WAGNER-DINGELL

We dedicate this story, which is Factual and Authentic, having happened in Southern Oakland County in the year of 1944, to Dr. Lillian Smith, of the Maternal Health Section of the State Board of Health; to the Children's Bureau of the U. S. Dept. of Labor; and to Messrs. Wagner, Dingell and Murray, with our profound wish that they answer for it, to that soldier's wife:

Bewildered, young, frightened, she came into Dr. S.'s office last week. Her husband was in service. She was pregnant, and having pains. She hadn't made any arrangements for servicemen's family relief. Somehow, she thought, *they* ought to have taken that upon themselves, for after all, they had made all the arrangements for her husband's induction.

Dr. S., with an office full of patients, examined her. She was in active labor, at term. She needed hospitalization, and right now. Dr. S. busied himself at the phone. X hospital was sorry, but rules prohibited the admission of service wives maternity cases (the State Board of Health refused to allow anywhere near the cost of hospitalization). Hospital Y would take her if it had to, but try to get some other accommodations; if you cannot, you must have the proper forms filled out. How long did that take? Ordinarily, three days. American Red Cross was called, but the woman in charge of those matters was out, wasn't expected for half an hour. The pains were becoming stronger, more frequent. A half hour passed, the Red Cross called again, the woman contacted. She would get results, the American Red Cross would guarantee the bill, they would send for the woman, the problem solved.

Shortly after that (several hours after the first telephone call), there was heard the screaming of sirens outside Dr. S.'s office, but he was pretty busy just then, could not look to see what was happening. The Red Cross worker came in as he entered his outer office. "We have come for the patient," she said. "Sorry," Dr. S. replied in a very tired voice, "You're too late. Mrs. R. has delivered a fine boy."

Unfortunately the Children's Bureau does not provide for rendering obstetric-pediatric services for servicemen's wives in doctors' offices.

SOCIAL MEDICINE TOPIC DISCUSSED

The trend in centralization of government as it affects the future of medical practice in this country was the subject of a talk given by Floyd E. Armstrong, professor of economics at Massachusetts Institute of Technology, last night at the first session of the People's university, sponsored in Battle Creek as a part of the public evening school program.

"When people ask for socialized medicine they are seeking, first, better medicine, then better medical service, lastly more rapid treatment. In other words they are seeking the best in medicine. Does the Murray-Wagner-Dingell bill, which proposes to make the medical profession one of the bureaus of this already too powerful bureaucracy, provide for this?

"The bill proposes to raise annually, through payroll deductions, approximately $12,000,000,000. This would mean that every employe in America would pay six per cent of his salary into an enlarged social security fund and this would be matched by another six per cent from the employer. It further proposes placing in the hands of one man—the Surgeon General of the United States—the power and authority to hire and appoint doctors, fix salaries, determine the number of individuals for whom any physician may provide service and to assign physicians in cases where the chosen one's quota is filled."

When statistical evidence shows that our American medical practice is way out in front compared to those all over the world, why is there need for change?" the speaker asked. The medical profession itself is resisting the proposal not because it is unfavorable toward medical insurance, but because it believes the end sought can be accomplished in a better way than the bill suggests.

No doctor in this nation is unsympathetic to the idea that people should get the best medical care possible for as reasonable a cost as it can be given, nor is any doctor not in favor of medical insurance to protect the common person, Mr. Armstrong pointed out in explaining that the question is not "will we get what we want when we seek socialized medicine, but how shall we get benefits from it?"

"Where will our doctors stand in this new plan?" the professor asked, and then sought to explain that they would be somewhat at a standstill in their profession because "you cannot drive men to improve their skills and to become better surgeons when there is not that persuasive influence of self-interest behind them."

Appeals to People

In conclusion, the professor appealed to the people of the university to think "American" when the time comes for them to support or to reject this bill. "We want an America of freedom, of independence and of self-reliance, not an America which will tell us what to do. We cannot think devoid of our prejudices," he agreed, "but let us make certain we are not defeating our own efforts."—*Enquirer-News, Feb. 4, 1944.*

SOCIALIZED MEDICINE

The Wagner Bill will be considerably modified, but some of its worst features may become law unless it is seen in its true light. *It is part of a program, now well advanced, to enslave the individual to the state. In this process, he gradually loses his adult self-reliance, lapses toward infancy, and then degenerates into a willing slave of government. It is the process by which strong nations sink toward extinction.*—Editorial, *The Indianapolis News,* August 9, 1943.

It must be remembered that the indigent are not covered by compulsory health insurance. The Wagner-Murray-Dingell Bill still leaves the really big problem unsettled.

Michigan State Medical Society

Second Annual

POSTGRADUATE INDUSTRIAL MEDICAL AND SURGICAL CONFERENCE

Thursday, April 6, 1944

Horace H. Rackham Educational Memorial

Corner Farnsworth—at Woodward

DETROIT, MICHIGAN

Sponsored by

The Committee on Industrial Health
Michigan State Medical Society
and the
Michigan Association of Industrial Physicians and Surgeons

in coöperation with

The Department of Postgraduate Medical Education
University of Michigan
and the
Wayne University College of Medicine

Samuel Peck, M.D.

C. F. Long, M.D.

M. H. Solworth, M.D.

L. E. Himler, M.D.

C. A. Moyer, M.D.

Marion Jocz, M.D.

M. H. Pike, M.D.

J. W. Hirshfeld, M.D.

POSTGRADUATE INDUSTRIAL MEDICAL AND SURGICAL CONFERENCE

Program

General Chairman

Kenneth E. Markuson, M.D., Lansing
Chairman, Committee on Industrial Health
Michigan State Medical Society

MORNING SESSION

Presiding Chairman

Edgar H. Norris, M.D., Detroit
Dean, Wayne University College of Medicine

A.M.

10:00 Address of Welcome

C. R. KEYPORT, M.D., Grayling
President, Michigan State Medical Society

10:10 "Newer Trends in Industrial Sanitation."

MOHE H. SOLWORTH, Louisville, Ky.
Sanitation Consultant

10:40 "The Psychiatric Approach to Current Mental Health Problems in Industry."

LEONARD E. HIMLER, M.D., Ann Arbor
Consultant in Psychiatry, Detroit Transmission Division, General Motors Corp.

11:10 "How to Control Epidemics of Occupational Dermatitis with Special Emphasis on the Epidermophytoses."

SAMUEL PECK, Senior Surgeon (R), USPHS, Bethesda, Md.

11:40 "Criteria for Employability of Individuals with Lung Pathology."

CHARLES-FRANCIS LONG, M.D., Philadelphia
Chairman, Commission on Industrial Health and Hygiene, Medical Society of the State of Pennsylvania

LUNCHEON SESSION

Due to food rationing, no luncheon session has been arranged. Conferees may obtain luncheon at several good restaurants convenient to the Rackham Memorial.

AFTERNOON SESSION

Presiding Chairman

Albert C. Furstenberg, M. D., Ann Arbor
Dean, Medical School, University of Michigan

P.M.

2:30 "In-Plant Rehabilitation Programs for Disabled Veterans."

MARION JOCZ, M.D., Detroit. Physician-in-charge, Diagnostic Division, Chrysler Corporation.

3:00 "Eye Pathology due to Exposure to Organic Solvents."

MELVIN H. PIKE, M.D., Midland, Consultant in Ophthalmology, Dow Chemical Company.

3:30 "A Comparison of Various Salt Solutions in the Treatment of Burns."

CARL A. MOYER, M.D., Ann Arbor
Asst. Professor of Surgery, University of Michigan.

4:00 "Clinical Uses of Penicillin."

JOHN WINSLOW HIRSHFELD, M.D., Detroit
Asst. Professor of Surgery, Wayne University College of Medicine.

Exhibit on "Cutting Oil Dermatitis"

Arranged through courtesy of Committee on Scientific Exhibit of

American Medical Association

Thos. G. Hull, Ph. D., Director

MICHIGAN'S DEPARTMENT OF HEALTH

H. ALLEN MOYER, M.D., Commissioner, Lansing, Michigan

X-RAY UNIT WILL VISIT FOUR STATE COLLEGES

Chest x-rays of all students enrolled in Michigan's four colleges of education will be secured with the opening of the fall term this year when the state health department's mobile photographic unit visits campuses in Mt. Pleasant, Marquette, Ypsilanti and Kalamazoo.

Approval of the x-ray program has been given by the state board of education.

Members of faculties of the four schools may avail themselves of the opportunity to secure x-ray examinations.

ACCIDENTS COST FEWER LIVES IN STATE IN 1943

Accidental deaths from all causes occurring in Michigan in 1943 dropped seven per cent from the 1942 total, according to unofficial figures supplied by the state health department. The 1943 total was 3,434, for the preceding year 3,685.

Deaths from automobile accidents dropped to 995 from the 1,370 recorded in 1942. Deaths from home accidents increased from 1,309 in 1942 to 1,391 in 1943. A 19 per cent increase in deaths of children under fourteen years resulted from accidents in the home, according to eleven-month figures.

There was a 10 per cent drop in deaths resulting from accidents in Michigan manufacturing plants during 1943 as compared with the 1942 total, with eighty-five deaths reported last year as against ninety-four in 1942.

Deaths from occupational accidents in all classifications totaled 314, a decline of 14 per cent from the 1942 total of 366. Greatest increase in occupational deaths was reported for the war-stimulated mining and quarrying industries, the thirty-eight deaths reported in this classification being exactly twice the number recorded for the preceding year.

SANATORIA HEADS PLAN CLOSER CO-OPERATION

Heads of Michigan's tuberculosis sanatoria will work even more closely in future with state health authorities in determining matters of institutional policy. An advisory committee of five members representing the Michigan Sanatorium Association will meet at least twice annually hereafter with physicians of the bureau of tuberculosis control of the Michigan Department of Health to discuss present and postwar problems. The committee represents Michigan's state, county, municipal and certain privately-operated sanatoria.

Members of the committee are: Dr. Paul T. Chapman, director of tuberculosis hospitalization and field service of the Herman Kiefer hospital, Detroit, chairman; Dr. John Barnwell, director of the tuberculosis division of the University of Michigan hospital; Dr. W. B. Howes, director of the Detroit Tuberculosis Sanatorium; Dr. E. W. LaBoe, superintendent of the Michigan State Sanatorium at Howell, and Dr. Charles R. Smith, superintendent of the Copper Country Sanatorium at Houghton.

Newly-elected officers of the Michigan Sanatorium Association are Dr. Henry Stuart Willis, superintendent of the Wm. E. Maybury sanatorium at Northville, president; and Dr. Joseph Egle, superintendent of the Northern Michigan sanatorium, Gaylord, secretary.

STATE LABS TO HANDLE PARATYPHOID CULTURES

State health department laboratories in Lansing, beginning February 1, were ready to aid Michigan physicians in identifying some of the rarer types of paratyphoid fever. The state laboratories are the sixth in the United States where such identification can be made.

Heretofore, cultures have been sent by the department to laboratories of the University of Kentucky, first in the United States to undertake such studies. Other laboratories where types of organisms causing paratyphoid can be determined are maintained by New York and Connecticut state health departments, Beth Israel hospital in New York City, and a California institution.

First typing station for the identification of such organisms was maintained in Copenhagen by the League of Nations. It is now in German hands.

DEMAND IS DECREASING FOR RECORDS OF BIRTHS

A 57 per cent drop last year in number of requests for assistance in establishing proofs of age and citizenship as compared with the record-breaking demand in 1942 is reported by the state health department. Industrial and Selective Service demands for proofs of identity fell off in the second year of war.

The department made 51,719 searches of records last year as compared with 121,328 searches in 1942, issuing 34,549 certified copies of birth records and 19,996 certifications, not including certified copies.

The department is custodian of records of births dating from 1867.

TUBERCULOSIS CLAIMS FEWER LIVES IN 1943

Fewer persons died of tuberculosis in Michigan in 1943 than during the preceding year according to unofficial state health department figures. Tuberculosis deaths, last year, totaled 1,781, or forty-six fewer than the 1,827 total of 1942. Average of deaths from this cause during the last five years is 1,810.

Male deaths, last year, totaled 1,136; female 645. Deaths among members of white races totaled 1,355, Negro 406, others twenty.

Tuberculosis caused most deaths from this cause in Detroit last year, as was the case also in 1942, Detroit's total of 904 exceeding by twenty-seven those

reported elsewhere in the state. Detroit's 974 tuberculosis deaths in 1942 exceeded the out-state total by 121.

Deaths resulting from tuberculosis among Detroit Negroes were 315 or 34.8 per cent of the total for that city, although Negroes constitute only 9.2 per cent of Detroit's population according to 1940 census figures.

MINOR CHANGES VOTED IN CONTROL MEASURES

The State Council of Health at its January meeting in Ann Arbor rescinded its resolution of July, 1942, prohibiting the rental of footgear by bowling alleys, skating rinks and similar amusement places. The Council also rescinded the requirement that bodies of persons who die of certain highly communicable diseases shall be shipped only in hermetically sealed metal containers, an action taken because of the wartime shortages of metals. Except for the above changes, 1943 regulations for the control of communicable diseases will remain in effect in 1944.

TOLL IN MOTOR TRAFFIC IS LOWEST SINCE 1924

Deaths resulting from automobile accidents in Michigan in 1943 will not exceed 975, according to a state health department estimate. It was the first time since 1924 that the annual traffic toll has dropped below the 1,000 mark.

The estimate represents a 28 per cent decline from the 1,351 total of 1942.

Deaths in the first 11 months of 1943 totaled 872, most fatalities occurring in September (106) and October (125). This is in keeping with the usual increase in motor vehicle deaths in fall months.

Five-year average of motor vehicle deaths (1938-1942) was 1,653.

THE INTERNATIONAL RED CROSS AND THE MEDICAL PROFESSION

The activities of the International Red Cross exert a powerful force toward the amelioration of the effects of war and represents an extension of the endeavors of the medical profession throughout its long history, *The Journal of the American Medical Association* points out in a recent editorial reviewing its history and functions. *The Journal* says:

"The International Red Cross was born of war and still serves most actively in wartime. The International or Geneva Red Cross movement rests on the foundation of the individual national organizations even though these vary widely in structure and importance in different countries. Since 1928 the International Red Cross has been a three-headed organization which includes the national societies of the Red Cross, the International Committee and the League of the Societies of the Red Cross.

"During the war of 1870 the International Committee assumed for the first time the assistance to prisoners of war and created an agency for prisoners at Basle. Later this agency was removed to Geneva. Past experiences were reviewed in 1929; this resulted in the adoption of the revised convention of Geneva in that year regarding the treatment of prisoners of war. This convention was ratified by most countries except Finland, Japan, Russia, and certain countries of Latin America.

"The principal features of this code relate to the visiting of camps for prisoners of war by delegates of the International Committee. The official delegates may consult with trusted prisoners ('hommes de confiance') who have been selected by their comrades and who represent them. These visits to camps make it possible for the delegates of the committee to request the camp authorities for improvements; they allow for the intervention of the International Committee itself. By reciprocity these visits permit equal improvements to be made in the conditions of prisoners of war held by the other side.

"The Central Agency for Prisoners in Geneva is concerned not only with prisoners of war but with all categories of war victims including wounded and sick, civilian internees, military internees in neutral countries, refugees in their own countries and civilians separated from their families by hostilities. This agency is consequently a vast organization with four big buildings in Geneva and 3,500 workers; it has received over 19 million letters and telegrams and has dispatched some 20 million. Some 60 thousand letters are received by this agency each day.

"A monthly journal in French records much of the current work of the International Red Cross. Of particular interest to Americans are the reports of visits to military prison camps and civilian internees in Japan proper and in such places as Shanghai and Hong Kong. Japan, although not a signatory of the Geneva Convention, previously indicated its intention of complying with its provisions. In most camps visited, conditions for both military personnel and civilians appear to be satisfactory. One recent report concerning the Stanley Camp for interned civilians at Hong Kong makes the somewhat enigmatic statement that the composition of rations has been recently improved. Reports on Japanese camps for Chinese and vice versa and on Russian camps for Axis prisoners and the reverse are missing.

"Altogether the International Red Cross exerts a powerful force toward the amelioration of the effects of war and represents an extension of the endeavors of the medical profession throughout its long history."

Woman's Auxiliary

WORK, WORK, WORK!

The officers of the Woman's Auxiliary to the Michigan State Medical Society are most appreciative of the invitation of the Medical Society, extended to them and the County Presidents, to attend "The School of Information" held January 30 in Detroit.

Mrs. J. J. Walch, *President*

The most effective expression of our realization of the importance of this combined meeting was demonstrated in our active participation in the plans and suggestions of our County Medical Societies. Each county is now provided with information and has been instructed how to use it. This work is dependent upon the continued effort of each individual member.

Your officers ask you to become thoroughly informed about the legislation and trends toward medical regimentation, and then to *work, work, work*. Let us respond wholeheartedly to the Medical Society's request for assistance.

MARY NEE WALCH

SAGINAW COUNTY

The Saginaw County Medical Auxiliary was honored at its November meeting by the presence of the State Auxiliary President, Mrs. John J. Walch. The Bay City Auxiliary was invited to the meeting. The December meeting was a dinner with the doctors. A social meeting was held in January, and members sewed for The Children's Home.

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Subscribe to the Bulletin

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KENT COUNTY

The Auxiliary to the Kent County Medical Society has had several interesting meetings. The first meeting of the year was a luncheon at the Browning Hotel, Grand Rapids, on October 1, when a war movie, "Target for Tonight," was shown.

On November 10, members met for luncheon at the Browning Hotel, and enjoyed Mrs. Fred C. Brace's review of Paul De Kruif's book, "Kaiser Wakes the Doctors." Wm. J. Burns, Executive Secretary, Michigan State Medical Society, spoke on the "Wagner-Murray-Dingell Political Medicine Bill."

Mrs. Ward S. Ferguson, president, has the following chairmen to assist her: *Program*—Mrs. Guy W. DeBoer and Mrs. Martin Batts; *Membership*—Mrs. Gerrit E. Winter; *Courtesy*—Mrs. W. D. Lyman; *Historian*—Mrs. Henry P. Kooistra; *Social*—Mrs. James C. Droste; *Revision*—Mrs. Henry J. Pyle; *Legislature*—Mrs. William A. Hyland; *Philanthropic and Welfare*—Mrs. J. D. Miller; *House*—Mrs. Burton R. Corbus and Mrs. John T. Hodgen; *Nutrition*—Mrs. William L. Rodgers; *Public Relations*—Mrs. E. H. Fuller; *Medical and Surgical Relief*—Mrs. Robert H. Denham; *Hygeia and Bulletin*—Mrs. J. D. Miller; *Press and Year Book*—Mrs. Henry P. Kooistra and Mrs. Floyd J. Gibbs.

* * *

"It would be most desirable to know the ultimate cost of compulsory social security. If it is not going to cost too much, say not more than $2,000,000,000 a year, why should we be upset about it? But, if it is going to cost a very large amount, say $20,000,000,000 a year, then there is good reason for some very serious thinking. Such an amount could hardly be raised without greatly disturbing the normal wealth-creating functions of the national economy. In this event, we should spare no effort to find out more about the cost of compulsory social security. High or low, it would be desirable to know.

"The sad fact of the matter, however, is that no one knows. Not even the Federal Government, which has given more time and money to the study of social security than any other person or organization, knows what its cost will be." —GERHARD HIRSCHFELD.

CLASSIFIED ADVERTISING

PHYSICIAN WANTED—Full time. To be director of the Lansing Department of Health Venereal Disease clinic. Position immediately available. Salary $4,200. Contact Floyd R. Town, M.D., Lansing Dept. of Health, 207 City Hall, Lansing 7, Michigan.

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A W O L

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The voluntary choice of remaining at home during two or three days of the menstrual period cuts sharply into the attendance of many women at critical war work.

In special cases, the need for discriminating therapy—analgesic, hormonal, emmenagogic, even surgical—may justify home confinement.

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✶ COUNTY AND PERSONAL ACTIVITIES ✶

The Wagner-Murray-Dingell Bills (S. 1161 and H.R. 2861) contain no provision for the care of indigents!

* * *

"There is nothing as irresistible as a thought whose time has come"—FLOYD E. ARMSTRONG, M.D., Professor of Economics, M.I.T.

* * *

The Mississippi Valley Medical Society will hold its tenth Annual Meeting in Peoria, Illinois, September 27-28, 1944.

* * *

Parker Heath, M.D., Detroit, is the author of an original article "Chemotherapy in Ophthalmology" which appeared in the JAMA of January 15, 1944.

* * *

"I don't believe that the Creator put us on this earth to obtain security without effort"—FLOYD E. ARMSTRONG, M.D., Professor of Economics, M.I.T.

* * *

"A panel system is an excellent thing for the dud doctor. Unfortunately, a good doctor will be a good doctor under any system."

* * *

Wilfrid Haughey, M.D., Editor of THE JOURNAL of the Michigan State Medical Society, spoke before the Jonesville Lions Club on February 21 on the "Wagner-Murray-Dingell Bill."

* * *

Roy D. McClure, M.D., and the Surgical Staff of Henry Ford Hospital, Detroit, entertained the members of the Flint Academy of Surgery to a Scientific Meeting, Luncheon and Surgical Clinic on January 12, 1944.

* * *

J. Earl McIntyre, M.D., Lansing, Secretary of the Michigan Board of Registration in Medicine, was guest speaker at the annual meeting of the Federation of State Medical Boards, held in Chicago, February 15. Doctor McIntyre discussed "Medical Licensure Aspects."

* * *

The Seventh Annual Postgraduate Course in Ocular Surgery, Pathology and Orthoptics, sponsored by the George Washington University School of Medicine, Washington, D. C., will be held April 24 to 29, inclusive. For further information apply to the Secretary, 927 Seventeenth Street, N. W., Washington, D. C.

* * *

E. R. Witwer, M.D., Councilor of the 16th District of the Michigan State Medical Society and Secretary of the Wayne County Medical Society, has been elected

President of the Radiological Society of North America.

Congratulations, Councilor Witwer!

* * *

"The Wagner-Murray-Dingell Bill would put the practice of medicine on the assembly line," stated Doctor F. J. Cullen, Executive Vice President of the Proprietary Association of America at a recent meeting of the Scientific Section held in New York City. "If this bill passes, patients will be treated in the future by assembly-line methods."

* * *

The American Physicians' Art Association will hold its 7th Annual Exhibit at the AMA meeting, Chicago, June 12-16. The Art Gallery will be in the main Ballroom Balcony of the Stevens Hotel, Chicago. Mead Johnson and Company of Evansville, Indiana, is underwriting the cost of the exhibition. Entry blanks may be obtained by writing Francis H. Redewill, M.D., Secretary, Flood Building, San Francisco.

* * *

The Michigan Basic Science Board reports that since it was created in 1937, it has given 776 examinations, of which number 567 have passed and 209 have failed in one or more subjects. The Board has granted thirty-three certificates by reciprocity, of which number sixteen were certified to the Osteopathic Board, seven to the Medical Board, seven to the Chiropractic Board, and three did not indicate to what profession they belong.

* * *

Michigan medical men on the program of the Sixth Annual Congress on Industrial Health, sponsored by The Council on Industrial Health, American Medical Association, held in Chicago, February 15-16, were: Edgar H. Norris, M.D., Clarence D. Selby, M.D., Roy D. McClure, M.D., Conrad Lam, M.D., all of Detroit, Frank F. Tallman, M.D., Lansing, and Max Burnell, M.D., Flint.

* * *

The Public Debt.—By June 30, 1944, the public debt will reach about $198 billion and a year later $258 billion, and soon it will be necessary to request legislation authorizing a further increase in the debt limit from the present $210 billion level. Our debt policy has maintained low and stable interest rates, now less than 2 per cent on the average. A debt of $258 billion will require gross interest payments of $5 billion annually at present rates. With a national income of $125 billion or more, these payments need not prove oppressive.

* * *

"Urology Award.—The American Urological Association offers an annual award 'not to exceed $500' for an essay (or essays) on the result of some specific clinical or laboratory research in Urology.

"The selected essay (or essays) will appear on the program of the forthcoming meeting of the American Urological Association, June 19-June 22, 1944, Hotel Jefferson, St. Louis, Missouri.

"Essays must be in the hands of the Secretary,

Thomas D. Moore, M.D., 899 Madison Avenue, Memphis, Tennessee, on or before March 15, 1944."

* * *

Cost of the E.M.I.C. Project! In less than seven months, the Federal Emergency Maternal and Child Health Program for Servicemen's Wives jumped from an appropriation of $1,200,000 to one of $18,620,000.

The Children's Bureau allotment and Congressional appropriations have been as follows:

1.	Prior to March 18, 1943, U. S. Children's Bureau allotments	$ 390,177.00
2.	Public Law 11, March 18, 1943	1,200,000.00
3.	Public Law 135, July 12, 1943	4,400,000.00
4.	Public Law 156, October 1, 1943	18,620,000.00
	TOTAL	$24,610,177.00

* * *

Two Narcotic Licenses Necessary—June 30 is the deadline for both the state and federal narcotic licenses. Shortly physicians will receive from the federal government Form No. 678 which now carries a special location in which the physician's state narcotic license number must be listed. This means that the state narcotic permit must be received first. The state does not send out forms. It is necessary for a physician to write to Mr. F. A. Taft, Director of Drugs and Drug Stores, Lansing, Michigan, enclosing $1.00 and requesting the certificate. The federal fee is also $1.00.

* * *

Enrollment of physicians in Michigan Hospital Service.—The annual enrollment period in Michigan Hospital Service will be during the month of March. A letter and application form will be sent to all members of the Michigan State Medical Society who are not enrolled in the plan at the present time. If you are interested in obtaining this protection, please complete the application form and return it to the offices of Michigan Hospital Service not later than April 1, 1944. Protection for new applicants will become effective on May 1, 1944. The next opportunity to enroll will be April, 1945.

* * *

The programs of the Michigan Society of Neurology and Psychiatry for the present year have all been related to the present military emergency. At the meeting held on September 23, 1943, John C. Whitehorn, M.D., Professor of Psychiatry at the Johns Hopkins University School of Medicine, Baltimore, Maryland, addressed the Society on "Individal Issues in Post-Military Psychotherapy." On November 30, 1943, the Hon. Walter S. Maclay, Medical Superintendent of the Mill Hill Emergency Hospital, London, England, spoke on "Neurotic Disabilities in a Total War: The Rehabilitation of Neurosis Cases" and showed a film of the work being carried on at the Mill Hill Hospital. On January 20, 1944, Raymond W. Waggoner, M.D., Professor of Psychiatry at the University of Michigan Medical School, spoke on "Selection, Rejection, Rehabilitation: Our Psychiatric Responsibilities." The March meeting of the Society will be devoted to a consideration of the problem of juvenile delinquency.

SHOWDOWN ON DICTATORSHIPS BY BUREAU APPROACHING

We'll wager even money right now that it won't be long until the masters of strategy within the U. S. Children's Bureau will come forth with a recommendation (that is what they call it but some like to term it "directive") that the states revise their present programs of emergency maternity and infant care for the wives and children of servicemen to include general medical and surgical care for servicemen's wives—at least partial coverage. And, we'll lay another bet that there will be no provision to handle this on a cash allotment basis.

That's another step toward Federalized medicine, you say! Of course. Just a few more steps and Senator Wagner can junk his bill. It won't be needed by him to accomplish his purpose, as others will have done the job for him.

The wife of any serviceman who needs medical or surgical care deserves the best professional services available. If she cannot afford such care, it is the obligation of the government or some responsible private agency to provide the funds. These points are taken for granted.

But, how long are Congress and the people going to let the Children's Bureau act as the supreme dictator on such matters? If we are going to have a general Federal medical program, is Congress going to say what it shall be, or is the present policy of permitting a bureau of political appointees to draw the blueprint and administer it going to be continued indefinitely? Is the medical profession of this country going to have an opportunity to offer suggestions and to criticize, or is it going to have more and more programs shoved down its throat, and told to like them or lump 'em? How long is "for the duration"? How soon are we going to get back to applying the yardstick of need to decide who shall or shall not be entitled to public funds or the services provided at public expense? If a Federalized medical program is needed for the wives of servicemen, will one be needed for the servicemen themselves when suffering from nonservice-connected disabilities? Is some bureau going to decide that and write the ticket, or will Congress be the judge and author of the plan?

Looks as if there might be troublesome times ahead, doesn't it? How would you react and what would you do if you were a member of The Council of the Ohio State Medical Association and had these problems dumped into your lap?—*Ohio State Medical Journal*, January, 1944.

THE DOCTOR'S LIBRARY

Acknowledgment of all books received will be made in this column and this will be deemed by us as a full compensation of those sending them. A selection will be made for review, as expedient.

PSYCHOLOGICAL MEDICINE. A short Introduction to Psychiatry, with an Appendix, War Time Psychiatry. By Desmond Curran, M.D., F.R.C.P., D.P.M., Psychiatrist and Lecturer in Psychological Medicine, St. George's Hospital, and Honorary Psychologist to the Maida Vale Hospital for Nervous Diseases, Temporary Surgeon Captain R.N.V.R., and Eric Guttmann, M.D., L.R.C.P. Ed. Neuropsychiatric Specialist Emergency Medical Service, etc. Foreword by J. J. Conybeare, D.M. (Oxon.), F.R.C.P. Physician to Guy's Hospital. A William Wood Book. Baltimore: The Williams and Wilkins Company. 1943. $3.50.

"Three years of war have brought psychiatry to the front . . . After the first world war many of the disorders and hysterical reactions were attributed to such organic conditions as shell shock, or other experiences, but now it is realized that the pathogenesis of these conditions is mainly psychological, and that the symptom complexes were not infrequently the result of ill-judged medical advice." This book is an attempt to analyze and study these mental and other stresses, to recognize the unstable recruit and avoid the breaking point which many of them would not have reached in the ordinary way of life. Psychiatric case taking is especially stressed, with a study of affective reactions types, hysterical reactions, drug neuroses, and management and treatment. It is a small but very helpful book.

ELEMENTS OF MEDICAL MYCOLOGY. By Jacob Hyams Schwartz, M.D., Assistant Professor of Dermatology, Harvard Medical School and Postgraduate School, Member American Dermatological Association, American Mycological Association, Dermatologist Massachusetts General Hospital. Introduction by Fred D. Weidman, M.D., Professor of Dermatological Research, University of Pennsylvania. New York: Grune & Stratton, 1943. $4.50.

The field of Mycology has been rather neglected and is ripe for this new book which approaches the study of mycology in a different way, stressing the infective organism, and its complete study together with the medical aspects. There are seventy-eight fine illustrations, an outline of the origin and morphology of the fungi and a table giving the pathological fungi, showing the organism, the clinical picture and the mycological findings, with pen illustrations. Many formulæ are given for the treatment of these diseases. The book is well printed on excellent paper and in large easily readable type, and good style.

THE COMPLEAT PEDIATRICIAN. Practical, Diagnostic, Therapeutic and Preventive Pediatrics, for the use of Medical Students, Interns, General Practitioners, and Pediatricians. Fourth edition. Wilburt C. Davison, M.A., D.Sc., M.D., Professor of Pediatrics, Duke University School of Medicine, and Pediatrician Duke Hospital. Durham, N. C.: Duke University Press, 1943. $3.75 (by check); $4.00 (credit).

The whole field of pediatrics is covered in the form of an encyclopedia. The subject is divided into systems such as gastro-intestinal, skin and contagious, neuropsychiatric, circulatory, orthopedic, etc., but under these headings individaul subjects are discussed, such as Acrodynia, Ataxia, Agranulocytosis, Malformations

(Continued on Page 266)

of the bones, muscles and joints. The topic in which the student is interested can be looked up in a very good index, and then is quite elaborately expounded. The book is complete and contains a world of useful information, in a form easily used. The book is an amazing collection of facts.

THE ARTHROPATHIES. A Handbook of Roentgen Diagnosis. By Alfred A. de Lorimier, A.B., M.A., M.D., Colonel, Medical Corps, United States Army, Commandant The Army School of Roentgenology, Memphis, Tenn., formerly Director Department of Roentgenology, The Army Medical School, Washington, D. C. Chicago. The Year Book Publishers, Inc., 1943. $5.50.

Col. de Lorimier has used the great store of information he and his colleagues have acquired during years of teaching, and has made it available in this most useful volume. There are 678 illustrations, all x-rays of some part or whole joint giving the points to be studied in disagnosing. This is accompanied by sufficient description to make the facts useful to the doctors who are caring for these patients having arthropathies, which constitute the third largest group requiring hospitalization and compensation since the last war, and now constitute the fifth largest group requiring such care and pension.

This book will not make a rentgenologist out of the doctor who uses it, but it will help him greatly in diagnosing his cases. We have never seen a group of x-rays that seemed to give more vivid illustrations of the pathology.

PAIN. Proceedings of the Association for Research in Nervous and Mental Disease, December 18 and 19, 1942 at New York. With 116 illustrations and 19 tables. Baltimore: The Williams and Wilkins Company, 1943. Price $7.50.

This is Volume XXIII of the research publications of this society, and is an extremely interesting work. Pain is studied, measured, and its causes are determined experimentally. For the intensive student of medicine this is a gold mine. The receptive mechanism is described, also the pain-producing impulses in peripheral nerves. A case of insensitivity to pain is reported in detail, with comments and discussion. The nature of itching gets a chapter. There are many studies on producing pain by various methods, as cold, visceral reactions, muscle contractions. Headache mechanisms due to stimuli, pressure, et cetera, are studied. There is a chapter on pain traceable to nasal and paranasal stimuli, reporting many and various actual experiments. The same study is made of pain traceable to the eye and its adnexia. Many pains are due to scalp and neck muscles. Cardiac pain gets three chapters. There are chapters on the relief of pain by rhizotomy, and the relief of head pains by surgical methods. We are intrigued by this book.

FRACTURES AND DISLOCATIONS FOR PRACTITIONERS. By Edwin O. Geckeler, M.D., F.A.C.S., Fellow of the American Academy of Orthopaedic Surgeons, Diplomate of the American Board of Orthopaedic Surgery. Third edition. A William Woods Book. Baltimore: The Williams and Wilkins Company, 1943. $4.50.

With the war and the increased amount of industrial work there has been a great increase in trau-

matic surgery, and books are necessary to keep the practitioner who must do a great bulk of this work up to date. The fundamentals of treatment are emphasized. The reasons for good and bad results are detailed. The best accepted methods are described and illustrated. The use of plaster, the use of traction, and occupational therapy all are well taught. It is a fine book and will be most valuable to the practitioner.

PATHOLOGY AND THERAPY OF RHEUMATIC FEVER. By Leopold Lichtwitz, M.D., lately Chief of the Medical Division of the Montefiore Hospital, and Clinical Professor of Medicine, Columbia University, New York City. Foreword by William J. Maloney, M.D., LL.D., F.R.S. (Edin.) Consulting Neurologist to the City Hospital, Formerly Professor of Nervous and Mental Diseases Fordham University. Edited by Major William Chester, M.C. New York: Grune and Stratton, 1944. Price $4.75.

Professor Lichtwitz says, "The pathologic basis of this disease is the allergic sensitization of certain mesenchymatous tissues." He wrote this book defending this concept. He claims that "rheumatic fever is a disease not of invasion but of defense. . . . It is not caused by a specific microörganism or virus, but by a sensitization to antigens, protein in nature, which in most instances are products of microörganisms. . . . Rheumatic fever in the majority of cases is a secondary disease. Preceding it there is usually a mild infection of the upper respiratory tract, such as a sore throat or tonsillitis." Proper discussion is given to the definition, general pathology, rheumatic heart disease, vascular disease, arthritismyositis and manifestations in the skin, nervous system and other organs and areas. Under therapy he discusses prevention, general therapy and antirheumatic drugs. He says "the tonsillectomy vogue is fortunately waning," he refers to Aycock's report that tonsillectomy makes children more susceptible to poliomyelitis. He has a treatment to cure tonsils "whose crypts are swollen with putrid, necrotic matter." He claims the mass of cases which prove the case for tonsillectomy can be equalled by a similar mass of cases proving the opposite. Despite the author's case against tonsillectomy we think the book is a challenge and well worth reading. He has made out a case for his theory of allergy. "Infectious foci on the one hand and rheumatic fever and chronic arthritis on the other are so common that chance inevitably brings them together."

A TEXTBOOK OF MEDICINE. Edited by Russell L. Cecil, A.B., M.D., Sc.D., Professor of Clinical Medicine, Cornell University Medical College; Attending Physician, New York Hospital; Visiting Physician, Bellevue Hospital, New York City. Associate Editor for Diseases of the Nervous System—Foster Kennedy, M.D., F.R.S.E., Professor of Cilnical Neurology, Cornell University Medical College; Attending Physician, New York Hospital; Visiting Physician in Charge, Neurological Service, Bellevue Hospital; Consulting Physician, New York Neurological Institute. Sixth Edition, revised and entirely reset. 1566 pages with 195 illustrations. Philadelphia and London: W. B. Saunders Company, 1943. Price $9.50.

"Cecil's Medicine" has always taken its place among the most useful books on the student's or physician's

shelf; however, the new Sixth Edition contains many features which are worth noting.

The new edition contains changes both in text and format. There are several new contributors as well as many new topics which were not covered previously. Among the new additions are chapters on Virus Pneumonia, Aviation Medicine, Seasickness and Air Sickness, Pathologic Physiology of Circulatory Failure and Cardiac Pain and several others. In addition to these new chapters many new treatises have been written bringing the previous subject matter up to date.

Particular attention has been given to the section on Cardiovascular Diseases, of value is the list of normal laboratory values which is placed conveniently in the back of the book.

The change in format consists in a rearrangement of the text in double columns on a larger page. This lends itself to much easier reading.

It is the reviewer's opinion that the book comes as close as possible to being the ideal medical reference book for the busy practitioner.

CLINICAL LABORATORY METHODS AND DIAGNOSIS. By R. H. A. Gradwold, M.D., D.Sc. A textbook on laboratory procedures with their interpretation. Third edition. Two volumes, cloth bound, with 726 text illustrations in both volumes and 57 color plates. St. Louis: C. V. Mosby Company, 1943. Price $20.00.

This is a comprehensive treatise of clinical laboratory diagnosis with laboratory procedures. This is the third edition which has been revised, parts of it rewritten and much new material added which brings this publication up to date.

New photomicrographs, illustrations and color plates have been added; all are of good quality. Whenever possible, several methods are outlined for obtaining values giving the technician a choice of procedures depending upon the material and apparatus available. These volumes are intended primarily to serve as a guide or text to the laboratory technician; the books are, however, rather cumbersome to be conveniently used as a laboratory manual.

The author has endeavored to correlate the clinical symptomatology with the laboratory findings, which is so necessary for a clear understanding by the technician.

In the section on blood chemistry the principles and explanations underlying various tests and procedures are omitted. The photo-electric colorimeter has come into universal use in all modern clinical laboratories, yet no chemical procedures are submitted which could serve as a model for their application and use. Mention is merely made that the manufacturers will supply the instructions for each instrument.

The so-called "explanation of the hydrogenion concentration" is entirely inadequate and incomplete.

Hematology is covered satisfactorily; it is marred, however, by the part of this section devoted to the "Blood picture in various infectious diseases." "Typical hemograms" do not exist for many infectious diseases listed; notably among these is appendicitis. The author bases his conclusion in one instance on a series of only ninety-seven cases. The chapter on blood groups and

transfusions is a new and valuable addition. It includes information on the Rh factor, the M & N agglutinogens and subgroups of A.

Additions have been made to serological diagnosis; this permits further evaluation of tests by comparative study.

Toxicological technic and crime detection should not be undertaken by the clinical laboratory worker for the results of the examination always carry with it the medical legal aspect. The individual making these tests must therefore be able to qualify as an expert.

Three hundred and eighty-three pages are devoted to parasitology and tropical medicine. This section is profusely illustrated showing the characteristics and diagnostic features of the parasites and their ova. The diagrams of the life cycles of parasites should be most helpful to the student of this subject. This subject will undoubtedly assume more prominence with the return of the troops from widely separated sections of the world where they are exposed to various tropical and parasitic diseases.

This should be a valuable edition to the library of the clinical laboratory.

REACTION TO INJURY. By Wiley D. Forbus, M.D., Professor of Pathology, Duke University and Pathologist to the Duke Hospital. Pathology for students of disease based on the functional and morphological response of tissue to injurious agents. 532 illustrations, 20 in color. Baltimore: The Williams and Wilkins Company, 1943. Price $9.00.

This is a text for students of pathology. The author prefers to designate it, "Reaction to Injury." This is the

first of two volumes; the second volume is in the process of preparation for publication.

This volume consists of two parts: "The introduction to the study of diseases" and "Resistive reaction to injury"; it deals exclusively with infectious diseases. The author develops his subject matter on broad principles rather than on detailed stereotyped style to which so many of the writers on this subject adhere. He treats this material as a live subject embodying a series of sequences which occur in disease, physiologically as well as anatomically. The subject matter is based on three fundamentals, by which the individual can react to disease; by resistance, by submitting and effecting an adaptation.

This book makes fascinating reading as it is more like a novel than what is usually considered a "dry" subject. The style is easy and simple, well arranged, devoid of the usual statistics and names of writers which have a tendency to interrupt the continuity of thought.

The illustrations and photomicrographs are largely original and on the whole of good quality yet the descriptive legends do not seem sufficient to point out the salient features to the uninitiated student, despite the author's opinion to the contrary.

The viral, rickettsial and fungus diseases have been given deservedly prominent space as have some of the tropical diseases. This has undoubtedly been motivated by the importance that these entities are assuming by the return of soldiers now serving in various parts of the world.

Every physician would do well to read this book and keep it as a handy reference.

ANTISERUM SUPPLY EXHAUSTED

The supply of Influenzal Type B antiserum for the treatment of influenzal meningitis has been exhausted and is not available for general distribution in the immediate future. After it is again available for distribution, the medical profession shall be notified.

THADDEUS M. KOPPA, M.D., C.P.H.,
Director, Bureau of Epidemiology,
Michigan Department of Health

POSTGRADUATE ATTENDANCE

The attendance for the extramural postgraduate program in October and November, 1943, was as follows:

Ann Arbor	39
Ann Arbor (October 8, State P. G. Conf.)	256
Battle Creek	80
Flint	73
Grand Rapids	86
Lansing	75
Mt. Clemens	35
Saginaw	64
Traverse City	47
Total	755

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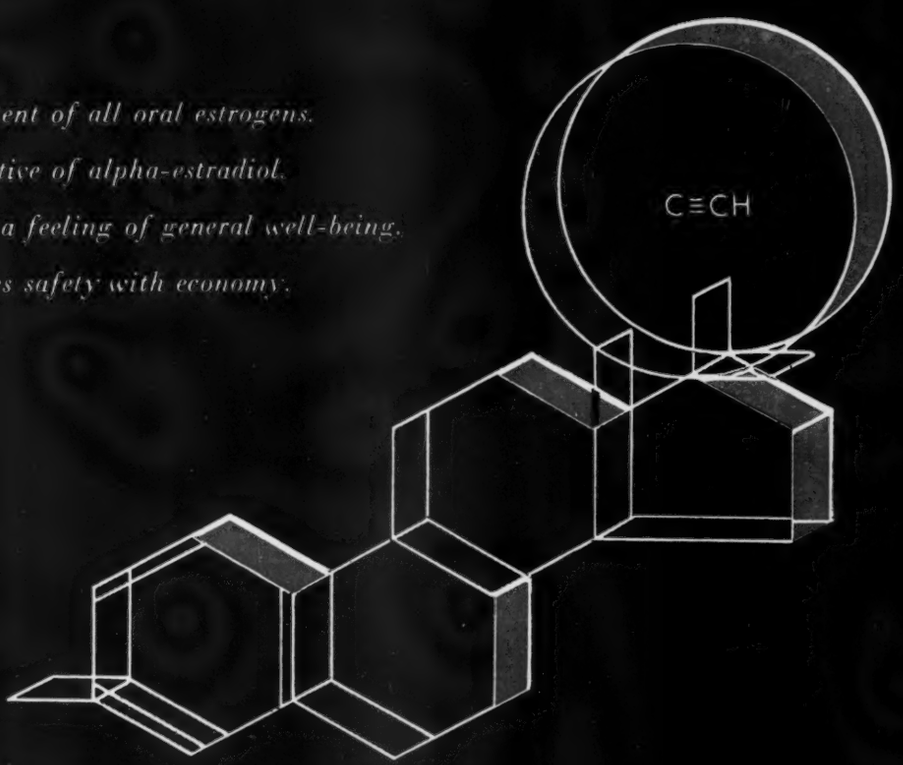

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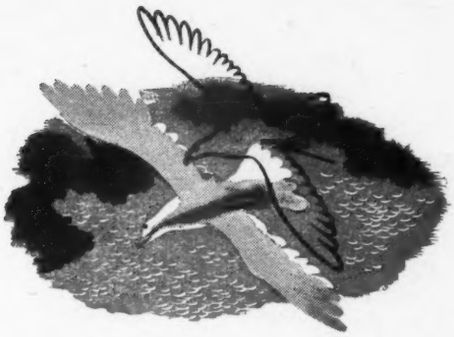

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REPORT ON SPECIAL SESSION OF THE MICHIGAN LEGISLATURE, 1944

The 62nd Michigan Legislature convened in extraordinary session on January 31 and adjourned February 18, 1944, accomplishing much of value in this short period of time. All the appropriations to run the state government for the fiscal year beginning July 1, 1944, were enacted as well as Governor Kelly's juvenile delinquency and aid to veterans program.

Sixty-two bills were introduced of which fifty-nine were passed by the Legislature.

Five Bills of Special Interest to Doctors

The medical profession was especially interested in five bills: HB 8; HB 9; SB 1; SB 9; SB 20.

1. *House Bill No. 8* called for an amendment with respect to the Probate Code concerning adoption procedure, investigation of proposed home by county agent or placement agency, supervision by county agent of adopted child during one-year period, and secrecy of adoption records. This bill was referred to the House Judiciary Committee which did not report it out.

2. *House Bill No. 9* proposed amendments to procedure in the Juvenile Division of Probate Courts. It rewrote the chapter and liberalized the powers of the probate judge in neglected and delinquent child cases. Section 18 (H), giving the probate court authority to provide a juvenile child with "medical, dental, surgical, or other health care, in a hospital or elsewhere" was so vague and broad that the Senate amended the section to read:

"Section 18 (H), Provide the child with such medical, dental, surgical, or other health care, in a local hospital if available or elsewhere, maintaining in so far as possible a local physician-patient relationship, and with clothing and such other incidental items, as the court seems necessary."

On the last day of the Session, The House concurred in this Senate amendment.

The Crippled-Afflicted Children Acts were specifically exempt from the provisions of this law. (Act No. 54 of P. A. 1944)

3. *Senate Bill No. 1* amended the election law to advance primary from September to July to facilitate veterans' voting, and amended other sections to conform. Provided for war ballots in conformity with federal law to be voted by armed service personnel including county, state, and legislative offices. (Act No. 4 of P. A. 1944)

4. *Senate Bill No. 9,* the appropriation measure for various public health purposes, as introduced would have set the state health commissioner's salary at $6,000. The Senate raised this to $9,000; the House lowered it to $7,500; the bill went to Conference Committee which on the last day of the Session recommended that the $9,000 salary set by the Senate be concurred in. The Conference Committee Report was approved by both the House and the Senate.

In this same bill, the appropriations for afflicted and crippled children's care were reduced to figures commensurate with the actual disbursements for the operation of these two Acts during the last biennium. (Act. No. 15 of P.A. 1944)

5. *Senate Bill No. 20* created a veterans' reserve fund of $1,000,000 and provided for disbursement by the State Administrative Board. Section 2 reads as follows:

"Said veterans' reserve fund shall be expended under the supervision and direction of the state administrative board to provide for the hospitalization, medical treatment, education and such emergency care and assistance as may be found necessary during the war period for the returning veterans of Michigan. Such appropriation shall be expended as provided in the accounting laws of the state." (Act No. 45 of P.A. 1944)

WILLIAM DeKLEINE, M.D.—MICHIGAN'S NEW COMMISSIONER OF HEALTH

William DeKleine, M.D., assumed office as Commissioner of Health of the State of Michigan on March 15, 1944.

Medical director of the American Red Cross from 1928 to September, 1941, and the man responsible for the introduction of the present Red Cross blood plasma program for the military forces, Dr. DeKleine has a broad background of experience in both private practice and public health work, as was pointed out by Governor Harry F. Kelly in his formal announcement of the appointment. The Governor said:

"In appointing Dr. DeKleine, I am giving the Michigan Department of Health a man whose broad background and fine record make him one of the country's outstanding public health authorities and who, through experience, is thoroughly familiar with the field of private medical practice.

"His alertness and initiative are demonstrated by his introduction of the blood plasma program for the armed forces and his promotion of the campaign to wipe out pellagra.

"It will be reassuring to have as head of our state health department in this all-important war year a man who is familiar with these and other progressive practices and who is well qualified to meet any health problem that may arise.

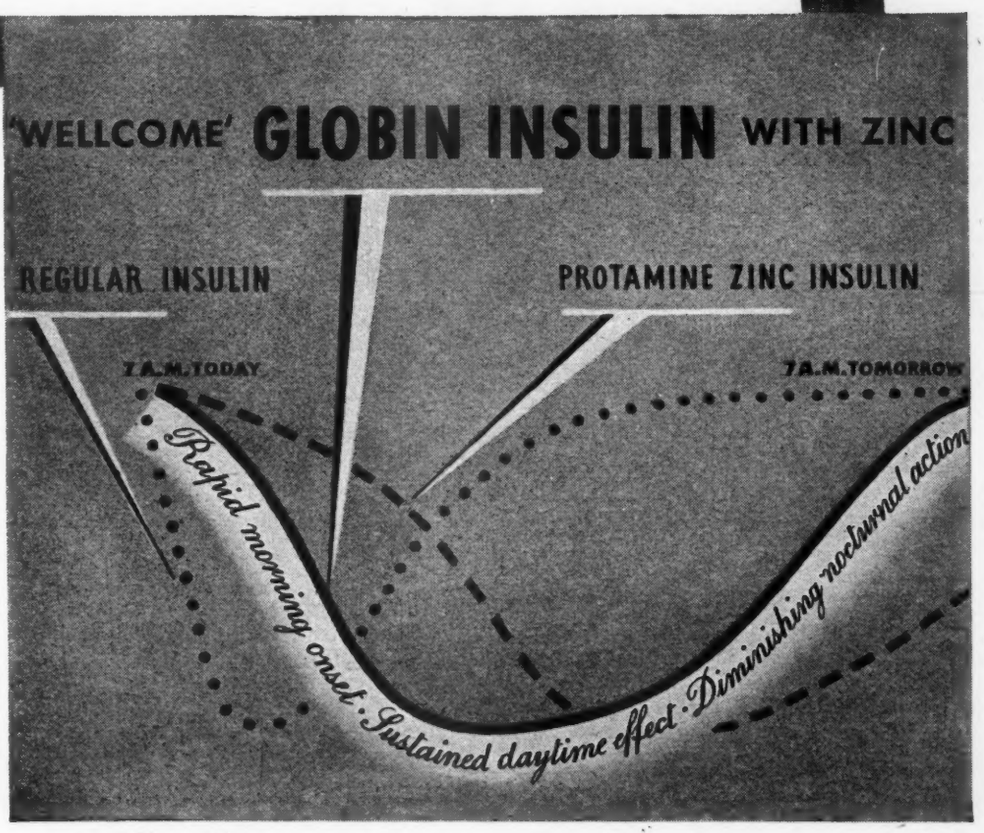
"A graduate of the Northwestern University Medical School and the Graduate School of the University of Michigan, Dr. DeKleine practiced medicine at Grand Haven, his home, from 1906 to 1914.

He was the first full-time health officer in Flint (1917-1922) and in Saginaw (1922-1927), organizing modern health departments in both cities.

"In 1927, he was loaned to the Red Cross to direct medical relief activities during the Mississippi flood and his permanent assignment as National Red Cross medical director came as a result of the record he established in this work. . . . Since retiring as Red Cross medical director in September, 1941, he has engaged in private practice in Washington, D. C.

"Dr. DeKleine is a former president of the Michigan Tuberculosis Association and the Michigan Public Health Association, and a former member of the boards of directors of the National Tuberculosis Association and the National Health Council. He is a fellow of the American Medical Association and the American Public Health Association; a member of the Medical Society of the District of Columbia and the Southern Medical Association."

Control...*the keynote in insulin action*



A schematic representation of the effects of various insulins on the blood sugar of a fasting diabetic patient.

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Michigan Doctors of Medicine in Military Service

God Bless and Protect Them

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Douglas, R. J.....Capt.
Fleishman, N. A.....Capt.
Gillard, James L.....Lt., USN
Griffith, Robert M.....Lt.
Hartwell, Shattuck W.....Capt.
Holmes, Roy H.....Major
Kane, Thomas J.....Capt.
Kerr, Howard J.....Capt.
LeFevre, Louis L.....Lt. Col.
Meengs, Marvin B.....Lt.
Miller, Phillip L.....Capt.
Morse, Bertram W.....Major
Price, Leonard .....Capt.
Risk, Robert D.....Capt.
Scholle, Norbert W.....Major

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*The list of **Muskegon County Military Members** was inadvertently omitted from the **March Number, JMSMS.** Our apologies to the Muskegon County Medical Society and to its physicians in Military Service.

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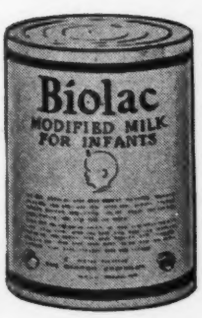

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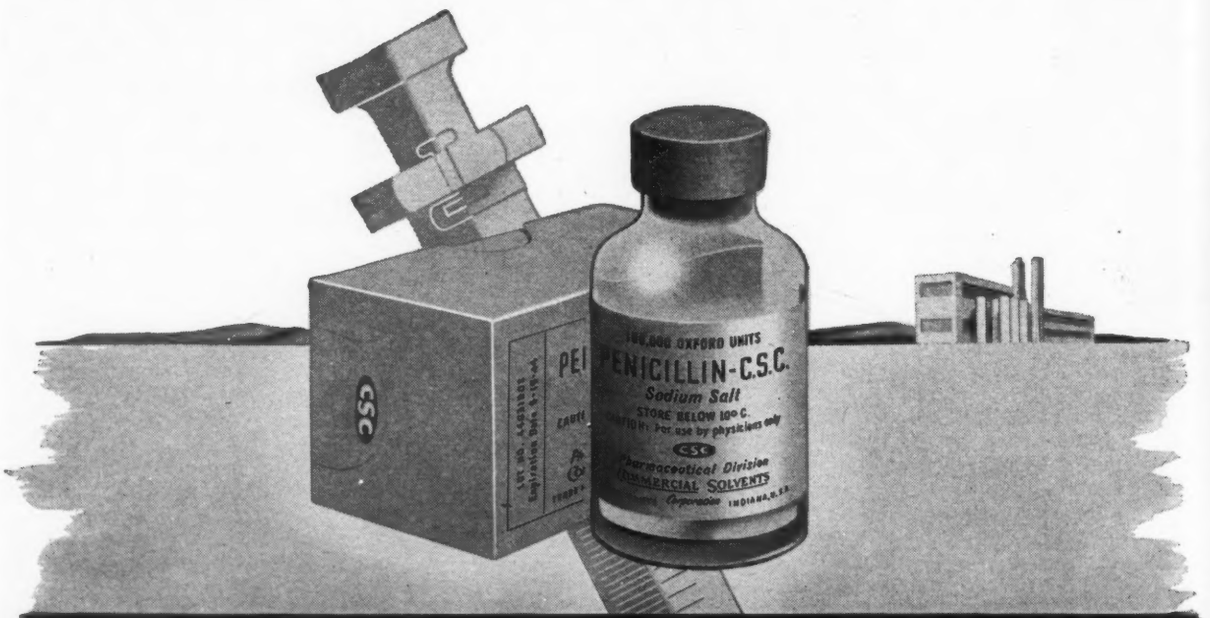

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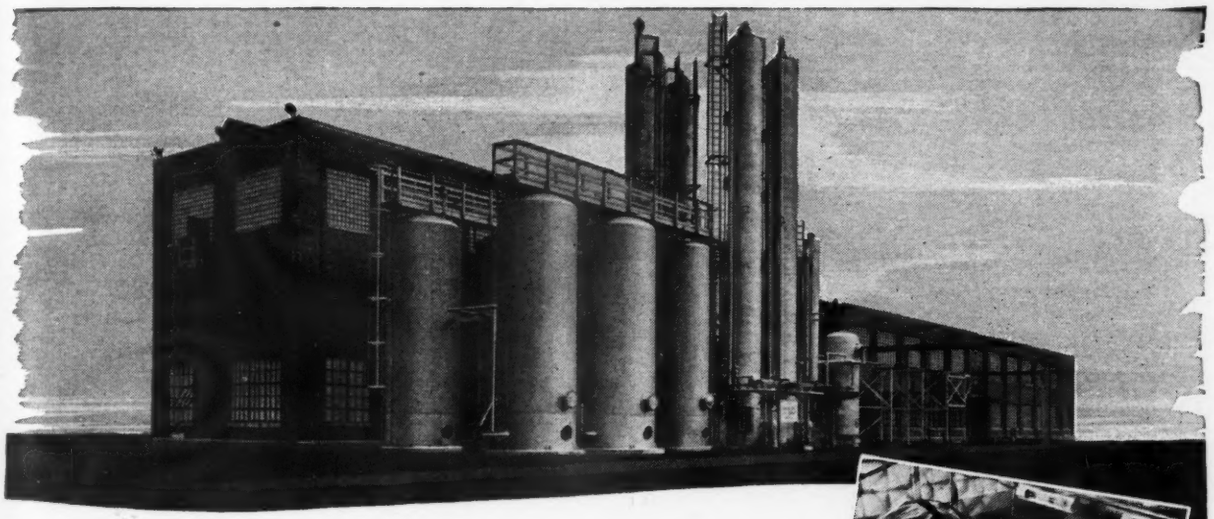

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Thus Commercial Solvents Corporation brings to the manufacture of penicillin not only outstanding production facilities, but also the knowledge born of a quarter century of research and actual experience, in a field not only difficult but largely unexplored by the pharmaceutical industry in general.

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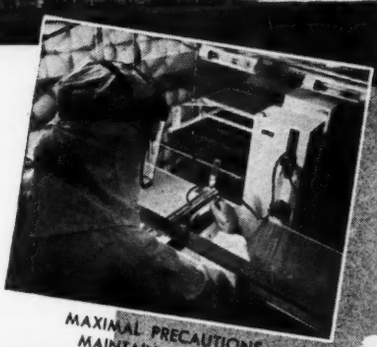

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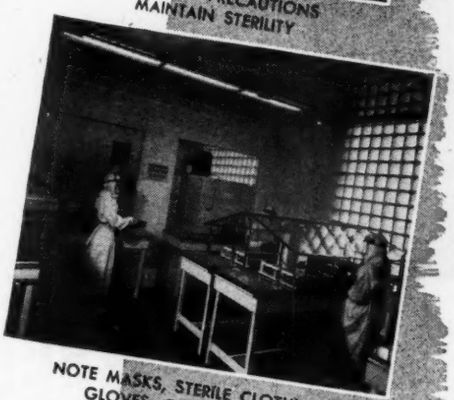

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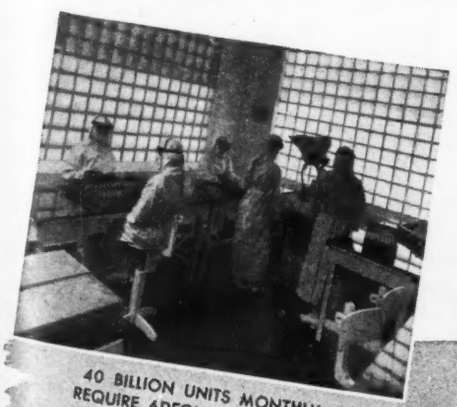

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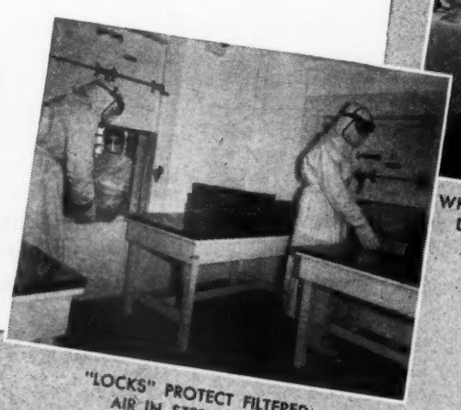

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6 level packed tablespoonfuls equal 1 ounce

Takes his 'Dexin' formulas avidly, plays cheerfully, sleeps well. And with all this comes mother's thorough satisfaction in a smooth routine, a happy baby, and her greater enjoyment of motherhood.

'Dexin' helps assure uncomplicated infant feeding. Its high dextrin content (1) diminishes intestinal fermentation and the tendency to colic and diarrhea and (2) promotes the formation of soft, flocculent, easily digested curds.

'Dexin' promotes good feeding habits. Palatable 'Dexin' formulas are not excessively sweet, and do not dull the appetite. Babies take other bland supplementary foods with less coaxing. 'Dexin' is readily soluble in hot or cold milk.

'Dexin' reg. U. S. Patent Office

'DEXIN'

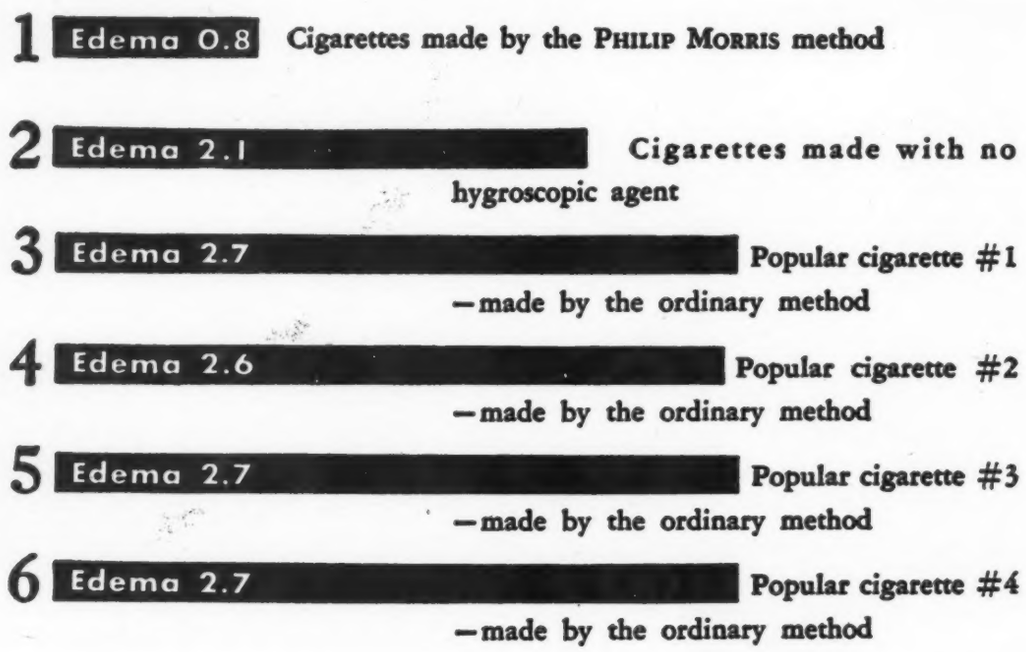
HIGH DEXTRIN CARBOHYDRATE

Literature on request

BURROUGHS WELLCOME & CO. (U.S.A.) INC. 9-11 E. 41st St., New York 17, N. Y.

How irritation varies— from different cigarettes

Tests made on rabbits' eyes reveal the influence of hygroscopic agents



CONCLUSION:* Results show that regardless of blend of tobacco, flavoring materials, or method of manufacture, the irritation produced by all ordinary cigarettes is substantially the same, and measurably greater than that caused by PHILIP MORRIS.

CLINICAL CONFIRMATION:** When *smokers* changed to PHILIP MORRIS, every case of irritation of the nose and throat due to smoking cleared completely or definitely improved.

**N. Y. State Journ. Med. 35 No. 11,590* ***Laryngoscope 1935, XLV, No. 2, 149-154*

THE SUNSET YEARS AND *Adequate Nutrition*

As the degenerative processes gain the upper hand during the last decade or two of life, profound changes occur in many metabolic mechanisms. The gastrointestinal tract for example becomes less tolerant of abuses, and difficulty is experienced in digesting some foods which formerly did not prove troublesome. The loss of vigor characteristic of senescence can easily be aggravated to a point of incapacitation if self-chosen eating habits are not altered to prevent nutritional deficiencies. For only by properly satisfying the nutritional requirements can adequate strength be maintained. Ovaltine is well tolerated by elderly persons. It supplies a wealth of nutrients which are readily metabolized and which are frequently lacking in the diets chosen during advanced years: biologically adequate protein, B complex vitamins, minerals, and vitamins A and D. Ovaltine is digested with ease, and its high content of diastatic enzyme makes it a valuable aid in the digestion of starchy foods. This delicious food-drink appeals to older persons, hence it can be included in their diet three times daily without meeting with resistance.

THE WANDER COMPANY, 360 NORTH MICHIGAN AVENUE, CHICAGO 1, ILLINOIS

Ovaltine

Three daily servings (1 ½ oz.) of New Improved Ovaltine provide:

	Dry Ovaltine	Ovaltine with milk*		Dry Ovaltine	Ovaltine with milk*
PROTEIN	6.0 Gm.	31.2 Gm.	VITAMIN A	1500 I.U.	2953 I.U.
CARBOHYDRATE	30.0 Gm.	62.43 Gm.	VITAMIN D	405 I.U.	480 I.U.
FAT	2.8 Gm.	29.34 Gm.	THIAMINE	.9 mg.	1.296 mg.
CALCIUM	.25 Gm.	1.104 Gm.	RIBOFLAVIN	.25 mg.	1.278 mg.
PHOSPHORUS	.25 Gm.	.903 Gm.	NIACIN	5.0 mg.	6.9 mg.
IRON	10.5 mg.	11.94 mg.	COPPER	.5 mg.	.5 mg.

*Each serving made with 8 oz. of milk; based on average reported values for milk.

MODERN • SIMPLE • SAFE • ETHICAL

It gives uniformly good results

• A powdered, modified milk product especially prepared for infant feeding, made from tuberculin tested cow's milk (casein modified) from which part of the butter fat is removed and to which has been added lactose, olive oil, cocoanut oil, corn oil, and fish liver oil concentrate.

One level tablespoonful of the Similac powder added to each *two* ounces of water makes 2 fluid ounces of Similac. The caloric value of the mixture is approximately 20 calories per fluid ounce.

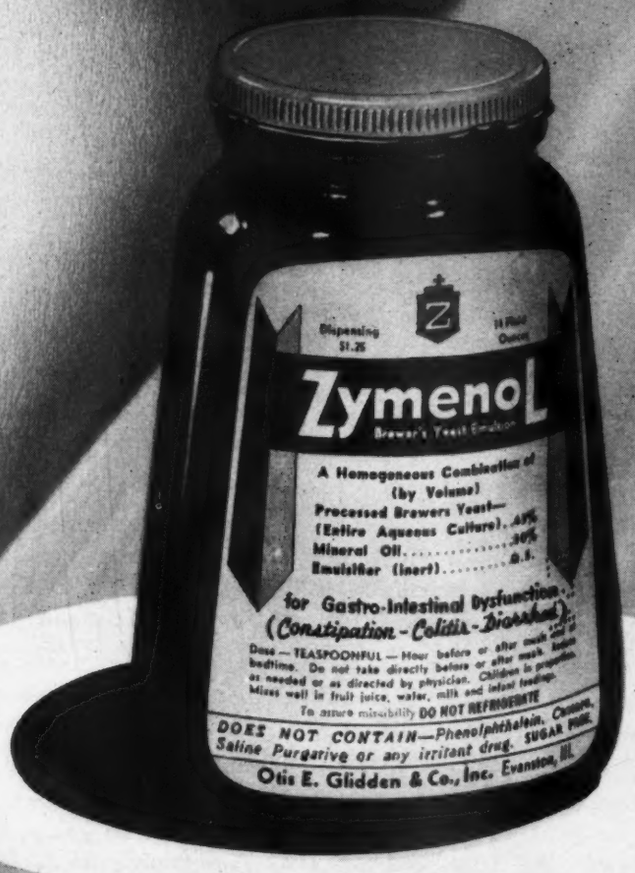
ACCEPTED AMERICAN MEDICAL ASSN

★ ★ SIMILAC } SIMILAR TO BREAST MILK ★ ★

M&R DIETETIC LABORATORIES, INC. • COLUMBUS 16, OHIO

3 Indications

CONSTIPATION
COLITIS
DIARRHEA



One Therapy

ZymenoL is indicated in either the irritable, unstable or stagnant bowel because it is a *natural approach* to the two basic problems of Gastro-Intestinal Dysfunction;

ASSURES NORMAL INTESTINAL CONTENT
. . . through BREWERS YEAST ENZYMATIC ACTION*

RESTORES NORMAL INTESTINAL MOTILITY
. . . with COMPLETE NATURAL VITAMIN B COMPLEX*

This twofold natural therapy restores normal bowel function *without* catharsis, artificial bulkage or large doses of mineral oil. Cannot affect vitamin absorption. Avoids leakage.

Teaspoon Dosage **Economical** **Sugar Free**

*ZymenoL contains Pure Aqueous Brewers Yeast (no live cells)

Write For FREE Clinical Size